Fields
09/424048

FILE 'CAPLUS' ENTERED AT 11:14:03 ON 27 SEP 2000

FILE COVERS 1967 - 27 Sep 2000 VOL 133 ISS 14
FILE LAST UPDATED: 26 Sep 2000 (20000926/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

This file supports REG1stRY for direct browsing and searching of all substance data from the REGISTRY file. Enter HELP FIRST for more information.

Now you can extend your author, patent assignee, patent information, and title searches back to 1907. The records from 1907-1966 now have this searchable data in CAOLD. You now have electronic access to all of CA: 1907 to 1966 in CAOLD and 1967 to the present in CAPLUS on STN.

-key terms

```
L1          644 SEA FILE=CAPLUS ABB=ON  PLU=ON  CRYPTOSPORID? AND
                OOCYST?
L2         8460 SEA FILE=CAPLUS ABB=ON  PLU=ON  IGG1 OR (IG OR IMMUNOGLOB
                ? OR IMMUNO GLOB?)(W)(G1 O GI OR G(W)(1 OR I)) OR
                IGG(W)(I OR 1)
L3            7 SEA FILE=CAPLUS ABB=ON  PLU=ON  L1 AND L2


L2         8460 SEA FILE=CAPLUS ABB=ON  PLU=ON  IGG1 OR (IG OR IMMUNOGLOB
                ? OR IMMUNO GLOB?)(W)(G1 O GI OR G(W)(1 OR I)) OR
                IGG(W)(I OR 1)
L4            9 SEA FILE=CAPLUS ABB=ON  PLU=ON  L2 AND CRYPTOSPORID?


L5            9 L3 OR L4

=> d 1-9 .bevstr1

L5   ANSWER 1 OF 9  CAPLUS  COPYRIGHT 2000 ACS
ACCESSION NUMBER:        1999:382133  CAPLUS
DOCUMENT NUMBER:         131:106411
TITLE:                   The next generation of Cryptosporidium
                         detection methods: two-color fluorescence,
                            Searcher   :    Shears   308-4994
```

'analysis-only' flow cytometry

AUTHOR(S): Ferrari, B.; Vesey, G.; Gauci, M.; Veal, D.
CORPORATE SOURCE: School of Biological Sciences, Macquarie University, Sydney, NSW 2109, Australia

SOURCE: Proc. - Water Qual. Technol. Conf. (1998) 1112-1117
CODEN: PWQCD2; ISSN: 0164-0755
PUBLISHER: American Water Works Association
DOCUMENT TYPE: Journal; (computer optical disk)
LANGUAGE: English

AB Routine detection of **Cryptosporidium oocysts** relies on immunofluorescence assays (IFA) employing fluorescently labeled monoclonal antibodies (mAbs). MAbs used for detection bind non-specifically to detrital particles present in environmental samples resulting in high levels of background fluorescence. A new mAb (Cry104) to **Cryptosporidium** of the **IgG1** subclass exhibited lower levels of non-specific binding to detritus in water samples compared with com. available antibodies. The specificity of Cry104 has allowed preliminary investigations into two color 'anal.-only' flow cytometry by utilizing two selection parameters. Two color flow cytometry results in a significant redn. in fluorescent detrital material being detected following anal.

IT **Cryptosporidium**
Cryptosporidium parvum
Environmental analysis
(**Cryptosporidium** detection by two-color fluorescence flow cytometry)

IT Immunoglobulins
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(G1; **Cryptosporidium** detection by two-color fluorescence flow cytometry)

IT Cytometry
(flow; **Cryptosporidium** detection by two-color fluorescence flow cytometry)

IT Antibodies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(monoclonal, Cry104; **Cryptosporidium** detection by two-color fluorescence flow cytometry)

IT 7732-18-5, Water, analysis
RL: AMX (Analytical matrix); ANST (Analytical study)
(**Cryptosporidium** detection by two-color fluorescence flow cytometry)

REFERENCE COUNT: 6
REFERENCE(S):
(1) Ferrari, B; To be published in Water Research 1998
(2) Ongerth, J; Applied and Environmental Microbiology 1987, V53, P672 MEDLINE

Searcher : Shears 308-4994

(4) Vesey, G; Cytometry 1997, V29, P147 MEDLINE
(5) Vesey, G; Journal of Applied Bacteriology 1993, V75, P87 MEDLINE
(6) Vesey, G; Letters in Applied Microbiology 1997, V25, P316 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1999:382071 CAPLUS
DOCUMENT NUMBER: 131:106402
TITLE: Specific antibodies for water testing: the good the bad and the **IgG1**
AUTHOR(S): Weir, C.; Vesey, G.; Slade, M.; Ferrari, B.; Williams, L.; Veal, D. A.
CORPORATE SOURCE: School of Biological Sciences, Macquarie University, 2109, Australia
SOURCE: Proc. - Water Qual. Technol. Conf. (1998) 1914-1917
CODEN: PWQCD2; ISSN: 0164-0755
PUBLISHER: American Water Works Association
DOCUMENT TYPE: Journal; (computer optical disk)
LANGUAGE: English

AB A highly antigenic ext. of the **Cryptosporidium oocyst** wall was developed and used to induce a strong IgG response in mice. Following fusion of mouse spleen cells with mouse myeloma cells a hybridoma cell line secreting a highly specific **IgG1** monoclonal antibody (Cry 104) to the walls of **Cryptosporidium oocysts** was produced. This antibody has a high specificity for **oocysts** and does not bind to detritus particles in water and is now in routine use for detecting **Cryptosporidium** in water.

IT Immunoglobulins
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(G1; specific antibodies for water testing for **Cryptosporidium**)

IT Antibodies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(monoclonal, Cry 104; specific antibodies for water testing for **Cryptosporidium**)

IT Development, microbial
(**oocyst, Cryptosporidium**; specific antibodies for water testing for **Cryptosporidium**)

IT Bioassay
Cryptosporidium
(specific antibodies for water testing for **Cryptosporidium**)

IT 7732-18-5, Water, analysis

RL: AMX (Analytical matrix); ANST (Analytical study)
(specific antibodies for water testing for **Cryptosporidium**)

REFERENCE COUNT: 8

REFERENCE(S):
(1) Connolly, G; Gut 1988, V29, P593 MEDLINE
(4) Safarik, I; Journal of Applied Bacteriology 1995, V78, P575 MEDLINE
(6) Tzipori, S; Advances in Parasitology 1988, V27, P63 MEDLINE
(7) Vesey, G; Journal of Applied Bacteriology 1993, V75, P87 MEDLINE
(8) Vesey, G; Letters in Applied Microbiology 1997, V25, P316 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1999:382039 CAPLUS
DOCUMENT NUMBER: 131:120437

TITLE: High affinity **IgG1** antibodies to **Cryptosporidium** and Giardia give improved recoveries from water samples using immunomagnetic separation (IMS)

AUTHOR(S): Scandizzo, P.; Vesey, G.; Gauci, M.; Baer, D.; Veal, D. A.
CORPORATE SOURCE: Australian Environmental Flow Cytometry Group (AEFCG), School of Biological Sciences, Macquarie University, 2109, Australia

SOURCE: Proc. - Water Qual. Technol. Conf. (1998) 1890-1892
CODEN: PWQCD2; ISSN: 0164-0755
PUBLISHER: American Water Works Association
DOCUMENT TYPE: Journal; (computer optical disk)
LANGUAGE: English

AB The development of a highly efficient immunomagnetic sepn. (IMS) procedure for the selective isolation of **Cryptosporidium oocysts** and Giardia cysts from a range of water samples is described. The efficiency of the IMS procedure was evaluated on a range of water types. The optimized system developed used highly specific **IgG1** antibodies to **Cryptosporidium oocysts** and Giardia cysts conjugated to paramagnetic beads. Using the optimized procedure, recoveries for **Cryptosporidium oocysts** from concd. water samples averaged 87% with a std. deviation of 6% and recovery of Giardia cysts averaged 84% with a std. deviation of 12%. Evaluation of com. available IMS kits which use IgM and IgG3 antibodies have resulted in recoveries of **oocysts** of less than 50% from the various water types tested. Selective enrichment of concd. water samples with the IMS procedure reduced the time required to analyze the samples by fluorescence activated cell sorting (FACS) to between 5

and 7 min and subsequent visualization and enumeration by microscopy was reduced to between 5 and 16 min when IMS was used to isolate **oocysts** and cysts from environmental water samples prior to FACS anal. The system allows for the simultaneous treatment of up to 24 samples and subsequent anal. by FACS and enumeration using microscopy. The system provides consistent and rapid recovery from a wide range of water samples and compliments the use of flow cytometry.

IT Immunoglobulins
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(G1; **IgG1** antibodies to **Cryptosporidium** and Giardia for recoveries from water using immunomagnetic sepn.)

IT **Cryptosporidium**
Giardia
(**IgG1** antibodies to **Cryptosporidium** and Giardia for recoveries from water using immunomagnetic sepn.)

IT Antibodies
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(**IgG1** antibodies to **Cryptosporidium** and Giardia for recoveries from water using immunomagnetic sepn.)

IT 7732-18-5, Water, analysis
RL: AMX (Analytical matrix); ANST (Analytical study)
(**IgG1** antibodies to **Cryptosporidium** and Giardia for recoveries from water using immunomagnetic sepn.)

REFERENCE COUNT: 5
REFERENCE(S):
(1) Adam, D; The biology of Giardia spp Microbiol Rev 1991, V55, P706
(2) Current, W; Clin Microbiol Rev 1991, V4, P325 MEDLINE
(3) Ongerth, J; Applied and Environmental Microbiology 1987, V53, P672 MEDLINE
(4) Rose, J; Water Science and Technology 1986, V18, P233 CAPLUS
(5) Scandizzo, P; Letters in Applied Microbiology submitted 1998

L5 ANSWER 4 OF 9 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1999:241341 CAPLUS
DOCUMENT NUMBER: 130:316301
TITLE: Comparison of **Cryptosporidium**-specific and Giardia-specific monoclonal antibodies for monitoring water samples
AUTHOR(S): Ferrari, B. C.; Vesey, G.; Weir, C.; Williams, K. L.; Veal, D. A.
CORPORATE SOURCE: Centre for Analytical Biotechnology, School of Biological Sciences, Macquarie University, Sydney, NSW 2109, Australia
Searcher : Shears 308-4994

SOURCE: Water Res. (1999), 33(7), 1611-1617
CODEN: WATRAG; ISSN: 0043-1354
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Routine detection of **Cryptosporidium oocysts** and Giardia cysts depend on immunofluorescence assays (IFA) using fluorescently labeled monoclonal antibodies. Com. available mAbs used for the detection of **Cryptosporidium oocysts** are of the IgM or IgG3 subclass, while those used for Giardia anal. are of IgM and IgG classes including **IgG1**. These mAbs suffer from non-specific binding to detrital particles present in environmental samples resulting in high levels of background fluorescence. New mAbs of the **IgG1** subclass to Giardia and **Cryptosporidium** selected primarily for water anal. have recently become available. These antibodies exhibited lower levels of non-specific particulate binding compared with com. available antibodies. The degree of background fluorescence obsd. following mAb staining of particles that were not **oocysts** or cysts varied between the water types analyzed.

IT Water pollution
(**Cryptosporidium**-specific vs. Giardia-specific monoclonal antibodies for monitoring water samples)

IT Antibodies
RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
(**Cryptosporidium**-specific vs. Giardia-specific monoclonal antibodies for monitoring water samples)

IT Giardia
(cysts; **Cryptosporidium**-specific vs. Giardia-specific monoclonal antibodies for monitoring water samples)

IT **Cryptosporidium**
(**oocysts**; **Cryptosporidium**-specific vs. Giardia-specific monoclonal antibodies for monitoring water samples)

IT 7732-18-5, Water, analysis
RL: AMX (Analytical matrix); ANST (Analytical study)
(**Cryptosporidium**-specific vs. Giardia-specific monoclonal antibodies for monitoring water samples)

REFERENCE COUNT: 20
REFERENCE(S):
(4) Dupont, H; New England Journal of Medicine 1995, V332(13), P855 MEDLINE
(5) Karanis, P; Immunutat and Infektion V21, P132 MEDLINE
(7) Lechevallier, M; Applied Environmental Microbiology 1991, V57, P2610 MEDLINE
(8) Lechevallier, M; Applied Environmental Microbiology 1991, V57, P2617 MEDLINE
(19) Vesey, G; Letters in Applied Microbiology

1997, V25, P316 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 5 OF 9 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1998:789173 CAPLUS
DOCUMENT NUMBER: 130:24095
TITLE: Antibodies to **Cryptosporidium**
INVENTOR(S): Vesey, Graham; Weir, Christopher; Williams, Keith Leslie; Slade, Martin Basil; Veal, Duncan
PATENT ASSIGNEE(S): Macquarie Research Ltd., Australia; Australian Water Technologies Pty. Ltd.
SOURCE: PCT Int. Appl., 40 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9852974	A1	19981126	WO 1998-AU368	19980519
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9875117	A1	19981211	AU 1998-75117	19980519
EP 991667	A1	20000412	EP 1998-922500	19980519
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
PRIORITY APPLN. INFO.:			AU 1997-6962	19970519
			AU 1997-8242	19970725
			WO 1998-AU368	19980519

AB The authors disclose methods of producing **IgG1** subclass antibodies reactive to the surface of **Cryptosporidium oocysts**. The methods comprise: (a) sepg. at least a portion of the **Cryptosporidium oocyst** cell wall from the internal sporozoites to form an **oocyst**-wall prepn.; (b) treating the sepd. **oocyst**-wall prepn. to obtain an **oocyst** antigen prepn.; (c) immunizing an animal with the **oocyst** antigen prepn. to elicit an **IgG1** immune response in the animal; and (d) obtaining from the animal **IgG1** antibodies reactive to the surface of **Cryptosporidium oocysts**. **IgG1** antibodies reactive to the surface of **Cryptosporidium**

cysts.

IT B cell hybridoma
(CRY104; for **IgG1** to **Cryptosporidium** **oocyst** cell wall antigen)

IT Feces
(**IgG1** antibodies to **Cryptosporidium** cell wall **oocyst** in relation to anal. of)

IT Surface waters
(**IgG1** antibodies to **Cryptosporidium** **oocyst** cell wall in relation to anal. of)

IT Mouse
(**IgG1** antibodies to **Cryptosporidium** **oocyst** cell wall prepn. in)

IT **Cryptosporidium** parvum
(**IgG1** antibodies to cell wall of **oocyst** of)

IT Cell wall (microbial)
(**IgG1** to cell wall of **Cryptosporidium** **oocyst**)

IT Boiling
Detergents
Oxidizing agents
Reducing agents
(for prepn. of **Cryptosporidium** **oocyst** cell wall for **IgG1** prodn.)

IT Affinity chromatography
Centrifugation
Crushing
Freezing-thawing
Grinding (size reduction)
Sonication
(in prepn. of **Cryptosporidium** **oocyst** cell wall for **IgG1** prodn.)

IT Biotinylation
(of **Cryptosporidium** **oocyst** cell wall antigens for **IgG1** prodn.)

IT Antigens
RL: BAC (Biological activity or effector, except adverse); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation)
(**oocyst** cell wall; extn. of **Cryptosporidium** **oocyst** cell wall for prodn. of **IgG1** to)

IT Development (microbial)
(**oocyst**; **IgG1** to cell wall of **Cryptosporidium** **oocyst**)

IT **IgG1**
Monoclonal **IgG1**
RL: ARG (Analytical reagent use); BPN (Biosynthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)

(to cell wall of **Cryptosporidium oocyst**)
IT 50-29-3, biological studies 57-13-6, Urea, biological studies 60-24-2, Mercaptoethanol 151-21-3, Sodium dodecylsulfate, biological studies 7681-52-9, Sodium hypochlorite 7790-28-5, Sodium periodate 9001-06-3, Chitinase 9002-93-1, Triton x-100 10028-15-6, Ozone, biological studies 39322-33-3, Nonidet
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(for prepn. of **Cryptosporidium oocyst** cell wall for **IgG1** prodn.)
REFERENCE COUNT: 8
REFERENCE(S):
(1) Bonnin, A; Infection and Immunity 1991, V59(5), P1703 MEDLINE
(2) Bonnin, A; Journal of Eukaryotic Microbiology 1995, V42(4), P395 MEDLINE
(4) Macquarie Research Ltd; WO 97/08204 1997 CAPLUS
(7) Petersen, C; Infection and Immunity 1992, V60(6), P2343 CAPLUS
(8) Riggs, M; Infection and Immunity 1994, V62(5), P1927 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1997:470098 CAPLUS
DOCUMENT NUMBER: 127:86134
TITLE: Treatment or prophylaxis of gastrointestinal diseases in animals with antibodies and probiotic organisms.
INVENTOR(S): Chandler, David Spencer; Reed, Benjamin John
PATENT ASSIGNEE(S): Pharma Pacific Pty. Ltd., Australia; Chandler, David Spencer; Reed, Benjamin John
SOURCE: PCT Int. Appl., 30 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9720577	A1	19970612	WO 1996-AU786	19961205
W: AU, JP, KR, NZ, US				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9676872	A1	19970627	AU 1996-76872	19961205
PRIORITY APPLN. INFO.:			AU 1995-6984	19951206
			WO 1996-AU786	19961205

AB The invention provides a method of treatment or prophylaxis of

disease in an animal, said method comprising administering effective amts. of substantially whole antibody and one of more strains of suitable probiotic organisms to said animal. The effectiveness of combined antibody-probiotic therapy was demonstrated in piglets.

IT Bacillus (bacterium genus)
Bifidobacterium
Clostridium difficile
Colostrum
Cryptosporidium
Enterococcus
Escherichia coli
Helicobacter pylori
Lactobacillus
Rotavirus
Streptococcus
(treatment or prophylaxis of gastrointestinal diseases in animals with antibodies and probiotic organisms)

IT Antibodies
Antidiarrheals
Gastroenteritis
IgG1
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(treatment or prophylaxis of gastrointestinal diseases in animals with antibodies and probiotic organisms)

IT Drugs
(veterinary; treatment or prophylaxis of gastrointestinal diseases in animals with antibodies and probiotic organisms)

L5 ANSWER 7 OF 9 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1990:589373 CAPLUS
DOCUMENT NUMBER: 113:189373
TITLE: **Cryptosporidium** parvum (Apicomplexa: **Cryptosporidiidae**) **oocyst** and sporozoite antigens recognized by bovine colostral antibodies
AUTHOR(S): Tilley, Michael; Fayer, Ronald; Guidry, Albert; Upton, Steve J.; Blagburn, Byron L.
CORPORATE SOURCE: Div. Biol., Kansas State Univ., Manhattan, KS, 66506, USA
SOURCE: Infect. Immun. (1990), 58(9), 2966-71
CODEN: INFIBR; ISSN: 0019-9567
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Colostral whey from seven hyperimmunized and two control cows (hyperimmune bovine colostrum) was examd. by Western immunoblotting for the presence of antibody against **oocysts** and sporozoites of C. parvum, using rabbit anti-bovine IgA **IgG1**, IgG2, and IgM antibodies, followed by a horseradish peroxidase

goat anti-rabbit polyvalent antibody. Although considerable variation was found in binding activity between cows on different immunization protocols, IgA and **IgG1** in whey recognized a greater variety of C. parvum antigens than did IgG2 and IgM. A band at 9 to 10 kilodaltons appeared unique in that it was recognized only by IgA.

IT Cattle
(Igs in hyperimmune colostrum from, **Cryptosporidium** parvum antigens recognition by)

IT Colostrum
(Igs in hyperimmune, from cattle, Crypstoporidium parvum antigens recognition by)

IT **Cryptosporidium** parvum
(antigens of, Igs in hyperimmune colostrum from cattle recognition of)

IT Immunoglobulins
RL: BIOL (Biological study)
(in hyperimmune colostrum, of cattle, **Cryptosporidium** parvum antigens recognition by)

IT Antigens
RL: BIOL (Biological study)
(of **Cryptosporidium** parvum, Igs in hyperimmune colostrum of cattle recognition of)

L5 ANSWER 8 OF 9 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1990:589372 CAPLUS
DOCUMENT NUMBER: 113:189372
TITLE: Immunotherapeutic efficacy of bovine colostral immunoglobulins from a hyperimmunized cow against **cryptosporidiosis** in neonatal mice
AUTHOR(S): Fayer, Ronald; Guidry, Albert; Blagburn, Byron L.
CORPORATE SOURCE: Livest. Poult. Sci. Inst., Agric. Res. Serv., Beltsville, MD, 20705, USA
SOURCE: Infect. Immun. (1990), 58(9), 2962-5
CODEN: INFIBR; ISSN: 0019-9567
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Infection with **Cryptosporidium** parvum, a ubiquitous protozoan parasite of virtually all mammals, can cause mild to severe diarrhea in immunocompetent hosts and life-threatening diarrhea in immunocompromised hosts. Passive immunotherapy of exptly. infected animals and naturally infected humans with hyperimmune bovine colostrum has been reported to be efficacious, whereas chemotherapy has not. In this study, the efficacy of specific Ig isotypes purified from bovine colostrum from a cow hyperimmunized with C. parvum was assessed in neonatal BALB/c mice. Mice were orally infected with **oocysts** and treated with

whole whey **IgG1**, IgG2, IgA, or IgM at six intervals from 22 to 66 h postinfection. In histol. sections of intestine examd. at 72 h postinfection, the redn. in no. of intestinal stages in treated mice vs. untreated controls was highly significant. The greatest redn. in parasite no. was found in mice treated with **IgG1**, IgA, or whey.

IT Colostrum
(Igs in hyperimmunized cow, protection against **cryptosporidiosis** by)

IT Immunoglobulins
RL: BIOL (Biological study)
(in colostrum in hyperimmunized cow, protection against **cryptosporidiosis** by)

IT **Cryptosporidium** parvum
(infection with, protection against by Igs in colostrum from hyperimmunized cow)

L5 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1990:233678 CAPLUS
DOCUMENT NUMBER: 112:233678
TITLE: Production of monoclonal antibodies by hybridomas sensitized to sporozoites of **Cryptosporidium** parvum
AUTHOR(S): Cho, Hyung Hwan
CORPORATE SOURCE: Dep. Microbiol. Immunology, Univ. Arizona, Tucson, AZ, 85721, USA
SOURCE: Sanop Misaengmul Hakhoechi (1989), 17(5), 494-8
CODEN: SMHAEH; ISSN: 0257-2389
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Hybridoma cell lines, which secrete monoclonal antibodies (mAbs) against the surface antigens of C. parvum sporozoites, were produced by fusing spleen cells of C. parvum sporozoite-immunized mice with P3-X63-Ag8 myeloma cells. Two cloned antibody-secreting cell lines, Korl and Ea2, were established and produced **IgG1** and IgG2a antibodies, resp. Percoll-purified sporozoites were solubilized and sepd. by SDS-PAGE. Western blot assay demonstrates that an antigen of 20-kDa was bound by monoclonals. By indirect immunofluorescence microscopy, mAb exhibited uniform binding to the sporozoite surface.

IT **Cryptosporidium** parvum
(antigens of sporozoites of, monoclonal antibodies to, prepn. of)

IT Antigens
RL: PREP (Preparation)
(of **Cryptosporidium** parvum, monoclonal antibodies to, prepn. of)

IT Antibodies
RL: PREP (Preparation)
(monoclonal, to **Cryptosporidium** parvum sporozoite antigens, prepn. of)

(FILE 'MEDLINE, BIOSIS, EMBASE, WPIDS, CONFSCI, SCISEARCH, JICST-EPLUS, JAPIO' ENTERED AT 11:15:01 ON 27 SEP 2000)
L6 28 S L5
L7 13 DUP REM L6 (15 DUPLICATES REMOVED)

L7 ANSWER 1 OF 13 BIOSIS COPYRIGHT 2000 BIOSIS DUPLICATE 1
ACCESSION NUMBER: 1999:217106 BIOSIS
DOCUMENT NUMBER: PREV199900217106
TITLE: Comparison of **Cryptosporidium**-specific and Giardia-specific monoclonal antibodies for monitoring water samples.
AUTHOR(S): Ferrari, B. C. (1); Vesey, G.; Weir, C.; Williams, K. L.; Veal, D. A.
CORPORATE SOURCE: (1) Centre for Analytical Biotechnology, School of Biological Sciences, Macquarie University, Sydney, NSW, 2109 Australia
SOURCE: Water Research, (May, 1999) Vol. 33, No. 7, pp. 1611-1617.
ISSN: 0043-1354.
DOCUMENT TYPE: Article
LANGUAGE: English
AB Routine detection of **Cryptosporidium oocysts** and Giardia cysts depend on immunofluorescence assays (IFA) employing fluorescently labeled monoclonal antibodies. Commercially available mAbs used for the detection of **Cryptosporidium oocysts** are of the IgM or IgG3 subclass, whilst those used for Giardia analysis are of IgM and IgG classes including **IgG1**. These mAbs suffer from non-specific binding to detrital particles present in environmental samples resulting in high levels of background fluorescence. New mAbs of the **IgG1** subclass to Giardia and **Cryptosporidium** selected primarily for water analysis have recently become available. These antibodies exhibited lower levels of non-specific particulate binding compared with commercially available antibodies. The degree of background fluorescence observed following mAb staining of particles that were not **oocysts** or cysts varied between the water types analysed.

L7 ANSWER 2 OF 13 SCISEARCH COPYRIGHT 2000 ISI (R)
ACCESSION NUMBER: 1999:236848 SCISEARCH
THE GENUINE ARTICLE: 177RK
TITLE: Phenotypic comparison of ileal intraepithelial lymphocyte populations of suckling and weaned calves
AUTHOR: Wyatt C R (Reprint); Barrett W J; Brackett E J; Davis W C; Besser T E
CORPORATE SOURCE: WASHINGTON STATE UNIV, COLL VET MED, DEPT VET MICROBIOL & PATHOL, PULLMAN, WA 99164 (Reprint)
COUNTRY OF AUTHOR: USA

SOURCE: VETERINARY IMMUNOLOGY AND IMMUNOPATHOLOGY, (22 FEB 1999) Vol. 67, No. 3, pp. 213-222.
Publisher: ELSEVIER SCIENCE BV, PO BOX 211, 1000 AE AMSTERDAM, NETHERLANDS.
ISSN: 0165-2427.
DOCUMENT TYPE: Article; Journal
FILE SEGMENT: LIFE; AGRI
LANGUAGE: English
REFERENCE COUNT: 30

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Ileal intraepithelial lymphocyte (IEL) suspensions from suckling calves (1-3 weeks old) and weaned calves (3-6 months old) were phenotyped to determine whether there were differences in the lymphocyte populations consistent with postnatal maturation of the mucosal immune system. Flow cytometric comparisons of IEL from the two age groups revealed the presence of significantly larger proportions of CD4(+) T lymphocytes and CD8(+) T cells in the weaned animals. In contrast, there was a significantly larger proportion of B-B2(+) IEL in the suckling calves. Freshly isolated IEL from both groups of calves expressed mRNA for TNF-alpha and IFN-gamma, but not IL-4 or IL-10. The B-B2(+) IEL population was more closely examined by flow cytometry. These cells co-expressed IgM and CD21. However, they did not express IgA, **IgG1**, nor any of several additional leukocyte differentiation molecules. Immunohistochemical data confirmed the presence of IgM(+) lymphocytes, and the paucity of IgA(+) and **IgG1**(+) lymphocytes in suckling calf ileum. However, substantial numbers of IgA(+) and **IgG1**(+) cells were observed in weaned calf ileum. Together, the data are consistent with ongoing postnatal maturation of the gut mucosal immune system.

L7 ANSWER 3 OF 13 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD
ACCESSION NUMBER: 1999-045300 [04] WPIDS
DOC. NO. NON-CPI: N1999-033039
DOC. NO. CPI: C1999-014209
TITLE: New **IgG1** antibodies specific to **Cryptosporidium oocyst** surface - useful in analysis of e.g. drinking water, prepared e.g. using antigen obtained from **oocyst** wall.
DERWENT CLASS: B04 D16 S03
INVENTOR(S): SLADE, M B; VEAL, D; VESEY, G; WEIR, C; WILLIAMS, K L
PATENT ASSIGNEE(S): (AUWA-N) AUSTRALIAN WATER TECHNOLOGIES PTY LTD; (MACQ-N) MACQUARIE RES LTD
COUNTRY COUNT: 83
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG

WO 9852974 A1 19981126 (199904)* EN 23
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW
W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH GM GW HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW
AU 9875117 A 19981211 (199917)
EP 991667 A1 20000412 (200023) EN
R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9852974	A1	WO 1998-AU368	19980519
AU 9875117	A	AU 1998-75117	19980519
EP 991667	A1	EP 1998-922500	19980519
		WO 1998-AU368	19980519

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 9875117	A	Based on	WO 9852974
EP 991667	A1	Based on	WO 9852974

PRIORITY APPLN. INFO: AU 1997-8242 19970725; AU 1997-6962 19970519

AN 1999-045300 [04] WPIDS

AB WO 9852974 A UPAB: 19990127

Preparation of **IgG1** antibodies (A) reactive with the surface of **Cryptosporidium oocysts** (CSO) involves (a) pretreating CSO with a reagent to remove the surface layer and form an antigen preparation, (b) separating **oocysts** from the antigen preparation to obtain a preparation capable of eliciting a detectable **IgG1** immune response to **oocyst** surface in an animal, (c) immunising an animal with the preparation to elicit an **IgG1** immune response and (d) obtaining (I) from the animal. An alternative preparation involves (a') separating at least a portion of the CSO wall from the internal sporozoites to form an **oocyst** wall preparation, (b') treating the preparation to obtain an **oocyst** antigen preparation capable of eliciting a detectable **IgG1** immune response to **oocyst** surface in an animal, and (c') as (c)/(d) above. Isolated (I) produced as above are claimed, specifically where (I) is monoclonal, especially where (I) have the **oocyst** binding and affinity characteristics of antibody

CRY104. The hybridoma clone CRY104 is also claimed.
USE - (A) are used to detect the presence of **Cryptosporidium** (a protozoan parasite causing diarrhoea in humans), particularly in flow cytometry analysis of drinking water.
ADVANTAGE - (A) show less non-specific binding than prior art antibodies.
Dwg.0/4

L7 ANSWER 4 OF 13 MEDLINE DUPLICATE 2
ACCESSION NUMBER: 95389629 MEDLINE
DOCUMENT NUMBER: 95389629
TITLE: An epidemiological study of **Cryptosporidium** parvum in two herds of adult beef cattle.
AUTHOR: Scott C A; Smith H V; Mtambo M M; Gibbs H A
CORPORATE SOURCE: Department of Veterinary Medicine, Glasgow University Veterinary School, Bearsden, UK..
SOURCE: VETERINARY PARASITOLOGY, (1995 Apr) 57 (4) 277-88. Journal code: XBU. ISSN: 0304-4017.
PUB. COUNTRY: Netherlands
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199512
AB Prevalences of **Cryptosporidium** parvum **oocysts** in faeces and of isotype-specific anti-C. parvum antibodies in serum of apparently healthy adult cattle on two farms were determined. On Farm 1 **cryptosporidial** diarrhoea had been recorded in more than 80% of calves born over the previous 5 years, whereas on Farm 2 **cryptosporidiosis** had never been reported. No differences were demonstrated in **oocyst** excretion or presence of antibodies between the two farms. C. parvum **oocysts** were detected in 62.4% of faecal smears collected from a total of 553 apparently healthy adult cattle. Sucrose flotation was performed on a proportion of the faecal samples. This proved a more sensitive technique, detecting **oocysts** in 92% of the samples tested, and highlighting the insensitivity of direct smears for detecting **oocysts**. More than 90% of the cattle had specific anti-C. parvum IgG, **IgG1**, IgG2 and IgM antibodies and 58% specific anti-C. parvum IgA antibodies. Results suggest that asymptomatic adults may play an important role in the epidemiology of **cryptosporidiosis** in calves.

L7 ANSWER 5 OF 13 BIOSIS COPYRIGHT 2000 BIOSIS
ACCESSION NUMBER: 1993:366410 BIOSIS
DOCUMENT NUMBER: PREV199396052085
TITLE: Serum anti-trichostrongyle antibody responses of first and second season grazing calves.
AUTHOR(S): Gasbarre, L. C. (1); Nansen, P.; Monrad, J.; Gronveld, J.; Steffan, P.; Henriksen, S. A.

CORPORATE SOURCE: (1) Helminthic Disease Lab., Livestock Poultry Sciences Inst., ARS, USDA, Beltsville, MD USA
SOURCE: Research in Veterinary Science, (1993) Vol. 54, No. 3, pp. 340-344.
ISSN: 0034-5288.
DOCUMENT TYPE: Article
LANGUAGE: English
AB Serum anti-Ostertagia ostertagi and anti-Cooperia oncophora antibody responses were assessed in first season and second season calves grazing permanent paddocks. Calves without previous exposure to trichostrongyles were found to mount significant parasite-specific **IgG1** antibody responses within two months of introduction to the pastures. A significant serum IgA response to O. ostertagi and IgG2 responses to both O. ostertagi and C. oncophora antigens were also observed, but these responses were weaker. No consistent serum antitrichostrongyle IgM responses were discernible in either age group. Second season grazing calves had significantly elevated **IgG1**, IgG2 and IgA antibody levels at turnout when compared to first season calves, but only IgA antibody levels against O. ostertagi increased during the second grazing season. Comparison of serum antibody levels in first and second season calves grazed separately or together suggests that mixed grazing had no discernible effect on antigen priming.

L7 ANSWER 6 OF 13 MEDLINE DUPLICATE 3
ACCESSION NUMBER: 91250988 MEDLINE
DOCUMENT NUMBER: 91250988
TITLE: Immunogold labeling of stages of **Cryptosporidium** parvum recognized by immunoglobulins in hyperimmune bovine colostrum.
AUTHOR: Fayer R; Barta J R; Guidry A J; Blagburn B L
CORPORATE SOURCE: USDA, ARS, Beltsville, Maryland 20705..
SOURCE: JOURNAL OF PARASITOLOGY, (1991 Jun) 77 (3) 487-90.
Journal code: JL3. ISSN: 0022-3395.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199109
AB Ultrathin sections of mouse ileum infected with **Cryptosporidium** parvum were stained by immunogold techniques. Sections first were stained with polyvalent antibodies in whey from hyperimmune bovine colostrum (HBC), then stained by secondary antibodies in rabbit antibovine IgA, IgM, **IgG1**, and IgG2, and lastly labeled by goat anti-rabbit gold conjugate. Examination of the immunostained specimens by electron microscopy revealed that each bovine immunoglobulin isotype in the whey recognized antigens in meronts, merozoites, microgametocytes, microgametes, and macrogamonts. Based on these findings it is

hypothesized that antigens in all stages of C. parvum provide targets of opportunity for the antiparasitic activity of HBC whey antibodies thereby accounting for its efficacy as an immunotherapeutic agent.

L7 ANSWER 7 OF 13 MEDLINE DUPLICATE 4
ACCESSION NUMBER: 92292026 MEDLINE
DOCUMENT NUMBER: 92292026
TITLE: Production and preparation of hyperimmune bovine colostrum for passive immunotherapy of **cryptosporidiosis**.
AUTHOR: Fayer R; Tilley M; Upton S J; Guidry A J; Thayer D W; Hildreth M; Thomson J
CORPORATE SOURCE: USDA, ARS, LPSI, Beltsville, MD 20705.
SOURCE: JOURNAL OF PROTOZOOLOGY, (1991 Nov-Dec) 38 (6) 38S-39S.
Journal code: JT3. ISSN: 0022-3921.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199209
AB Pregnant cows were immunized to produce hyperimmune bovine colostrum (HBC) by intramuscular injection or intramammary infusion (TI) followed by 3 successive TI boosters with **Cryptosporidium** parvum (Cp) **oocyst** antigen mixed with Freund's (F) or Ribi (R) adjuvant. Control cows received no Cp. Colostrum from all cows was skimmed of butterfat and tested for specific anti-Cp immunoglobulin isotypes by ELISA. The HBC from Cp-F and Cp-R immunized cows had **IgG1** titers exceeding 1:400,000 and 1:800,000, respectively. Some HBC from Cp-F immunized cows was freeze-dried to facilitate storage and some were irradiated at 42.5 kGy to kill potentially contaminating pathogens. Freeze-drying, but not irradiation, reduced **IgG1** titers by only one dilution. Neither treatment affected Western blot banding patterns.

L7 ANSWER 8 OF 13 MEDLINE DUPLICATE 5
ACCESSION NUMBER: 90354064 MEDLINE
DOCUMENT NUMBER: 90354064
TITLE: **Cryptosporidium** parvum (Apicomplexa: **Cryptosporidiidae**) **oocyst** and sporozoite antigens recognized by bovine colostral antibodies.
AUTHOR: Tilley M; Fayer R; Guidry A; Upton S J; Blagburn B L
CORPORATE SOURCE: Division of Biology, Kansas State University, Manhattan 66506..
SOURCE: INFECTION AND IMMUNITY, (1990 Sep) 58 (9) 2966-71.
Journal code: GO7. ISSN: 0019-9567.
PUB. COUNTRY: United States

Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals; Cancer Journals
ENTRY MONTH: 199011
AB Colostral whey from seven hyperimmunized and two control cows (hyperimmune bovine colostrum) was examined by Western immunoblotting for the presence of antibody against **oocysts** and sporozoites of **Cryptosporidium** parvum, using rabbit anti-bovine immunoglobulin A (IgA), **IgG1**, IgG2, and IgM antibodies, followed by a horseradish peroxidase goat anti-rabbit polyvalent antibody. Although considerable variation was found in binding activity between cows on different immunization protocols, IgA and **IgG1** in whey recognized a greater variety of C. parvum antigens than did IgG2 and IgM. A band at 9 to 10 kilodaltons appeared unique in that it was recognized only by IgA.

L7 ANSWER 9 OF 13 MEDLINE DUPLICATE 6
ACCESSION NUMBER: 90354063 MEDLINE
DOCUMENT NUMBER: 90354063
TITLE: Immunotherapeutic efficacy of bovine colostral immunoglobulins from a hyperimmunized cow against **cryptosporidiosis** in neonatal mice.
AUTHOR: Fayer R; Guidry A; Blagburn B L
CORPORATE SOURCE: Livestock and Poultry Sciences Institute, U.S. Department of Agriculture, Beltsville, Maryland 20705..
SOURCE: INFECTION AND IMMUNITY, (1990 Sep) 58 (9) 2962-5. Journal code: GO7. ISSN: 0019-9567.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals; Cancer Journals
ENTRY MONTH: 199011
AB Infection with **Cryptosporidium** parvum, a ubiquitous protozoan parasite of virtually all mammals, can cause mild to severe diarrhea in immunocompetent hosts and life-threatening diarrhea in immunocompromised hosts. Passive immunotherapy of experimentally infected animals and naturally infected humans with hyperimmune bovine colostrum has been reported to be efficacious, whereas chemotherapy has not. In this study, the efficacy of specific immunoglobulin isotypes purified from bovine colostrum from a cow hyperimmunized with **Cryptosporidium** parvum was assessed in neonatal BALB/c mice. Mice were orally infected with **oocysts** and treated with whole whey immunoglobulin G1 (**IgG1**), IgG2, IgA, or IgM at six intervals from 22 to 66 h postinfection. In histologic sections of intestine examined at 72 h postinfection, the reduction in number of intestinal stages in treated mice versus untreated controls was very highly significant (P less than 0.0001). The greatest reduction in parasite number was

found in mice treated with **IgG1**, IgA, or whey.

L7 ANSWER 10 OF 13 BIOSIS COPYRIGHT 2000 BIOSIS
ACCESSION NUMBER: 1990:219248 BIOSIS
DOCUMENT NUMBER: BA89:116538
TITLE: SERUM INDICES IN CALVES WITH THE SIGNS OF DIARRHEA CAUSED BY INFECTIOUS AND PARASITIC AGENTS.
AUTHOR(S): DEPTULA W; DEPTULA D
CORPORATE SOURCE: UL. SWIERCZEWSKIEGO 230, 66-400 GORZOW WIELKOPOLSKA.
SOURCE: MED WETER, (1989) 45 (7), 413-416.
CODEN: MDWTAG. ISSN: 0025-8628.
FILE SEGMENT: BA; OLD
LANGUAGE: Polish
AB The study was performed on three groups of calves with the signs of diarrhoea and one healthy (control) group, in which there was tested the level of serum albumins, total protein, the total level of immunoglobulins (Ig)-determined using zinc sulphate test (ZST) in units and also the concentration of IgG, IgG1, **IgG2**, IgM, IgA and lysozyme. It was found that the disease of calves of group I was due to bovine rotavirus, group II-Cryptosporidium sp. **and** group III-rotavirus, Cryptosporidium sp, E. **coli** and Salmonella sp. It was stated that in all calves under study the level of albumins, immunoglobulins (expressed in ZST units), IgG, IgG1, IgG2, IgM **and** IgA decreased. However, the level of lysozyme increased. The highest decline of the parameters concerned the calves of group II and I and to less extent group III. The changes correlated with the intensiveness of disease. In addition it was found that the highest decline of Ig in animals of group I included IgG1 and IgG2, **group** II-IgG2, IgG1 and IgM, and **group** III-IgA.

L7 ANSWER 11 OF 13 MEDLINE DUPLICATE 7
ACCESSION NUMBER: 89257970 MEDLINE
DOCUMENT NUMBER: 89257970
TITLE: Efficacy of hyperimmune bovine colostrum for prophylaxis of **cryptosporidiosis** in neonatal calves.
AUTHOR: Fayer R; Andrews C; Ungar B L; Blagburn B
CORPORATE SOURCE: Livestock and Poultry Sciences Institute, U.S. Department of Agriculture, Beltsville, Maryland 20705..
SOURCE: JOURNAL OF PARASITOLOGY, (1989 Jun) 75 (3) 393-7.
Journal code: JL3. ISSN: 0022-3395.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198909
AB Twelve neonatal calves were experimentally infected with

oocysts of **Cryptosporidium** parvum. Six calves in group A fed hyperimmune colostrum at birth had significantly less diarrhea and shed **oocysts** for less time than did 6 calves in group B fed colostrum from cows that were not hyperimmune. Calves in group A had diarrhea for 0-4 days (means = 2.3 days), whereas calves in group B had diarrhea for 4-6 days (means = 5.0 days). Calves in group A shed **oocysts** for 4-9 days (means = 6.2 days), whereas calves in group B shed **oocysts** for 7-11 days (means = 8.5 days). These findings indicate that passive lacteal immunity conferred partial protection against **cryptosporidiosis**. Whether such protection was provided by the immunoglobulins that were highly elevated in the colostrum (greater than 1:200,000 for **IgG1**, IgM, and IgA) and constituted a large part of the circulating antibody in the calves, or by other biologically active factors, such as cytokines, is undetermined.

L7 ANSWER 12 OF 13 CONFSCI COPYRIGHT 2000 CSA
ACCESSION NUMBER: 1999:12586 CONFSCI
DOCUMENT NUMBER: 99-025080
TITLE: Development of a highly specific **IgG1** monoclonal antibody for the detection of **Cryptosporidium** in water concentrates simplifies monitoring assays
AUTHOR: Weir, C.; Vesey, G.; Ferrari, B.; Williams, K.; Veal, D.
SOURCE: North American Lake Management Society (NALMS), P.O. Box 5943, Madison, WI 53705-5443, USA; phone: (608) 233-2836; fax: (608) 233-3186; email: nalmsalms.org; URL: www.nalms.org, Abstracts available. Contact NALMS for price..
Meeting Info.: 984 5030: North American Lake Management Society 18th International Symposium (NALMS '98) (9845030). Banff, Alberta (Canada). 10-13 Nov 1998. North American Lake Management Society.
DOCUMENT TYPE: Conference
FILE SEGMENT: DCCP
LANGUAGE: English

L7 ANSWER 13 OF 13 CONFSCI COPYRIGHT 2000 CSA
ACCESSION NUMBER: 1999:12585 CONFSCI
DOCUMENT NUMBER: 99-025079
TITLE: Development and evaluation of a new Immunomagnetic Separation (IMS) method based on high affinity **IgG1** antibodies for **Cryptosporidium** and Giardia
AUTHOR: Scandizzo, P.; Vesey, G.; Gauci, M.; Baer, D.; Smith, J.; Veal, D.
SOURCE: North American Lake Management Society (NALMS), P.O.

Box 5943, Madison, WI 53705-5443, USA; phone: (608) 233-2836; fax: (608) 233-3186; email: nalmsalms.org; URL: www.nalms.org, Abstracts available. Contact NALMS for price..
Meeting Info.: 984 5030: North American Lake Management Society 18th International Symposium (NALMS '98) (9845030). Banff, Alberta (Canada). 10-13 Nov 1998. North American Lake Management Society.
DOCUMENT TYPE: Conference
FILE SEGMENT: DCCP
LANGUAGE: English

(FILE 'CAPLUS, MEDLINE, BIOSIS, EMBASE, WPIDS, CONFSCI, SCISEARCH, JICST-EPLUS, JAPIO' ENTERED AT 11:24:56 ON 27 SEP 2000)

```
L8          133 S VESEY G?/AU
L9          291 S WEIR C?/AU
L10       10188 S WILLIAMS K?/AU
L11         546 S SLADE M?/AU
L12         232 S VEAL D?/AU
L13           2 S L8 AND L9 AND L10 AND L11 AND L12
L14          84 S L8 AND (L9 OR L10 OR L11 OR L12)
L15          16 S L9 AND (L10 OR L11 OR L12)
L16         124 S L10 AND (L11 OR L12)
L17           3 S L11 AND L12
L18       11163 S L8 OR L9 OR L10 OR L11 OR L12
L19          78 S (L14 OR L16 OR L18) AND CRYPTOSPORID?
L20          80 S L13 OR L15 OR L17 OR L19
L21          33 DUP REM L20 (47 DUPLICATES REMOVED)
```

L21 ANSWER 1 OF 33 BIOSIS COPYRIGHT 2000 BIOSIS
ACCESSION NUMBER: 2000:405816 BIOSIS
DOCUMENT NUMBER: PREV200000405816
TITLE: Monitoring survival of C. parvum oocysts in natural waters using Fluorescence In Situ Hybridization probes targeting 18 S rRNA.
AUTHOR(S): Le Moenic, S. (1); Feige, M. (1); **Veal, D. A.**
CORPORATE SOURCE: (1) Technical Support Centre, U.S. Environmental Protection Agency, Cincinnati, OH USA
SOURCE: Abstracts of the General Meeting of the American Society for Microbiology, (2000) Vol. 100, pp. 602. print.
Meeting Info.: 100th General Meeting of the American Society for Microbiology Los Angeles, California, USA May 21-25, 2000 American Society for Microbiology . ISSN: 1060-2011.
DOCUMENT TYPE: Conference
LANGUAGE: English
SUMMARY LANGUAGE: English

L21 ANSWER 2 OF 33 SCISEARCH COPYRIGHT 2000 ISI (R)
ACCESSION NUMBER: 2000:4673 SCISEARCH
THE GENUINE ARTICLE: 266HC
TITLE: Rationale and design of the National Emphysema Treatment Trial - A prospective randomized trial of lung volume reduction surgery
AUTHOR: Espada R (Reprint); Rodarte J; Miller C; Barnard C; Carter J; DuBose K; Flanigan T; Fox P; Haddad J; Hale K; Hood E; Jahn A; King K; Nguyen C; Norman S; Officer T; Reardon M; Ricketts J; Sax S; Tucker M; **Williams K**; Reilly J; Sugarbaker D; Fanning C; Birkenmaier K; Body S; Catanzano C; Duffy S; Formanek V; Fuhlbrigge A; Hartigan P; Hunsaker A; Jacobson F; Mark L; Russell R; Saunders D; Simons G; Swanson S; McKenna R; Mohsenifar Z; Geaga C; Aberle D; Brown J; Clark S; Cooper C; Ferrill R; Frantz R; Gelb A; Goldin J; Gordon J; Head D; Joyner M; Julien P; Levine M; Lewis M; Pendio M; Silverman J; Walker P; Williams B; Yegyan V; Yoou C; Maurer J; DeCamp M; Meli Y; Aviv L; Hearn C; Kraenzler E; Marlow S; McCarthy K; Mehta A; Meziane M; ODonovan P; Schilz R; Sullivan E; Ginsburg M; Scharf S; Jellen P; Asegu A; Austin J; Bartels M; Berkman Y; Berkoski P; Brogan F; Delphin E; Demercado G; DiMango A; DePrisco L; Gonzales J; Gotthelf J; Herman P; Khan A; Mantinaos M; McKeon K; Mets B; Pearson G; Pfeffer J; Rossoff L; Sunshine A; Simonelli P; Stavrolakes K; Thomashow B; Vilotijevic D; Yip C; MacIntyre N; Davis R D; Howe J; Crouch R; Grichnik K; Harpole D; Krichman A; Lawlor B; McAdams H; **Norten J**; RinaldoGallo S; Steele M; Tapson V; Hubmayr R; Deschamps C; Bartling S; Aughenbaugh G; Bradt K; Edgar M; Elliott B; Edell E; Garrett J; Hanson K; Hanson L; Harms G; Hartman T; Kalra S; Karsell P; Midthun D; Miller D; Mottram C; Odenbrett K; Swensen S; Sykes A M; Torres N; Utz J; Cherniack R; Make B; Gilmartin M; Buquor B; Canterbury J; Carlos M; Chetham P; Fernandez E; Geyman L; Lynch D; Newell J; Pomerantz M; Raymond C; Safilian B; Tolliver R; WhalenPrice J; Winner K; Zamora M; Diaz P; Ross P; Kelsey M; Dinant S; King M; Harter R; Mikelinich E; Rittenger D; Shaffer S; Naunheim K; Keller C; Osterloh J; Alvarez F; Borosh S; Bowen C; Frese S; Glockner J; Heidberg E; Hibbett A; Kleinhenz M E; McCain D; Ruppel G; Turnage S; Criner G; Furukawa S; Kuzman A M; Barnette R; Boiselle P; Brester N; DAlonzo G; Gilmartin M; Keresztury M; Kish L; Lautensack K; Leonard E; Leyenson V; Lorenzon M; OBrien G; OGrady T; Rising P; Schartel S; Travaline

J; Ries A; Kaplan R; Ramirez C; Brewer N; Colt H; Crawford S; Frankville D; Friedman P; Johnson J; Kapelanski D; Larsen C; Limberg T; Magliocca M; Olson L; Papatheofanis J; Prewitt L; Resnikoff P; SassiDambron D; Krasna M; Orens J; Moskowitz I; Altemus M; Bochicchio D; Britt J; Cook L; Fessler H; Gaetani D; Gheorghiu I; Gilbert T; Hasnain J; Kearney A; Kim S; King K; Markus S; Miller N; Schneider R; Shade D; Silver K; Smith K; Turner B S; Weir C; Wheeler J; White C; Martinez F; Iannettoni M; Meldrum C; Alexander J; Bria W; Campbell K; Christensen P; Foss C; Gill P; Kazanjian P; Kazerooni E; Knieper V; Lowenbergh N; Meldrum M; Miller R; Ojo T; Pergentili D; Poole L; Qunt L; Rysso P; Spear M; True M; Woodcock B; Kaiser L; HansenFlaschen J; Wurster A; Alavi A; Alcorn T; Aronchick J; Arcasoy S; Aukberg S; Benedict B; Craemer S; Edelman J; Gefter W; KotlerKlein L; Kotloff R; Manaker S; Mendez J; Miller W; Miller W; Palevsky H; Russell W; Simcox R; Snedeker S; Tino G; Keenan R; Sciurba F; George E; Ayres G; Bauldoff G; Brown M; Costello P; Donahoe M; Fuhrman C; Hoffman R; Holbert M; Johnson P; Kopp T; Lacomis J; Sexton J; Silfies L; Slivka W; Stroll D; Sullivan E; Tullock W; Benditt J; Wood D; Snyder M; Anable K; Battaglia N; Boitanao L; Bowdle A; Chan L; Chwalik C; Culver B; Godwin D; Golden S; Ibrahim A; Lockhart D; Marglin S; McDowell P; Nellum K; VanNorman G; Bosco L; Chiang Y P; Clancy C; Handelsman H; Piantadosi S; Tonascia J; Belt P; Collins K; Collison B; Dawson C; Dawson D; Donithan M; Edmonds V; Harle J; Jackson R; Lee S; Levine C; Meinert J; Nowakowski D; Reshef D; Smith M; Simon B; Sternberg A; VanNatta M; Wise R; Kaplan R M; Chaing Y P; Fahs M C; Fendrick A M; Moskowitz A J; Pathak D; Ramsey S D; Richter E; Schwartz J S; Sheingold S; Shroyer A L; Wagner J; Yusen R; Waldhausen J; Bernard G; DeMets D; Hoover E; Levine R; Mahler D; McSweeney A J; WienerKronish J; Williams O D; Younes M; Sheingold S; McVearry K; Mone C; ProctorYoung J; Fishman A P; Weinmann G; Deshler J; Albert P; Hurd S; Kiley J; Wu M

CORPORATE SOURCE: JOHNS HOPKINS SCH HYG & PUBL HLTH, JOHNS HOPKINS CTR CLIN TRIALS, ROOM 5010, 615 N WOLFE ST, BALTIMORE, MD 21205 (Reprint); BAYLOR COLL MED, CTR CLIN, HOUSTON, TX 77030; BRIGHAM & WOMENS HOSP, CTR CLIN, BOSTON, MA 02115; CEDARS SINAI MED CTR, CTR CLIN, LOS ANGELES, CA 90048; CLEVELAND CLIN FDN, CTR CLIN, CLEVELAND, OH 44195; COLUMBIA UNIV, CTR CLIN, NEW

YORK, NY; DUKE UNIV, MED CTR, CTR CLIN, DURHAM, NC 27706; MAYO CLIN & MAYO FDN, CTR CLIN, ROCHESTER, MN 55905; NATL JEWISH MED & RES CTR, CTR CLIN, DENVER, CO; OHIO STATE UNIV, CTR CLIN, COLUMBUS, OH 43210; ST LOUIS UNIV, CTR CLIN, ST LOUIS, MO 63103; TEMPLE UNIV, CTR CLIN, PHILADELPHIA, PA 19122; UNIV CALIF SAN DIEGO, CTR CLIN, SAN DIEGO, CA 92103; UNIV MARYLAND, CTR CLIN, BALTIMORE, MD 21201; UNIV MICHIGAN, CTR CLIN, ANN ARBOR, MI 48109; UNIV PENN, CTR CLIN, PHILADELPHIA, PA 19104; UNIV PITTSBURGH, CTR CLIN, PITTSBURGH, PA 15260; UNIV WASHINGTON, CTR CLIN, SEATTLE, WA 98195; US DEPT HHS, AGCY HLTH CARE POLICY & RES, ROCKVILLE, MD 20852; JOHNS HOPKINS UNIV, COORDINATING CTR, BALTIMORE, MD 21218; US HLTH CARE FINANCING ADM, BALTIMORE, MD 21207; UNIV PENN, OFF CHAIR STEERING COMM, PHILADELPHIA, PA 19104; NHLBI, PROJECT OFF, BETHESDA, MD 20892

COUNTRY OF AUTHOR: USA

SOURCE: CHEST, (DEC 1999) Vol. 116, No. 6, pp. 1750-1761.
Publisher: AMER COLL CHEST PHYSICIANS, 3300 DUNDEE ROAD, NORTHBROOK, IL 60062-2348.
ISSN: 0012-3692.

DOCUMENT TYPE: Article; Journal
FILE SEGMENT: LIFE; CLIN
LANGUAGE: English
REFERENCE COUNT: 40

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB The National Emphysema Treatment Trial is a multicenter, randomized clinical trial of medical therapy vs medical therapy plus lung volume reduction surgery (LVRS) for the treatment of patients with severe bilateral emphysema. LVRS will he accomplished by bilateral nl stapled excision via median sternotomy or video-assisted thoracoscopic surgery. Every patient will complete 6 to 10 weeks of pulmonary rehabilitation prior to randomization anti will participate in a maintenance program of pulmonary rehabilitation after randomization, The primary outcome to be assessed by the trial is survival. Additional outcomes to be assessed are maximum exercise capacity, pulmonary function, oxygen requirement, distance walked in 6 min, quality of life, respiratory symptoms, and health-care utilization and costs, In addition, selected clinics will evaluate lung mechanics and respiratory muscle function, partial and maximal flow-volume curves, gas exchange during maximal exercise, and right heart function, The trial is targeted to enroll patients with severe emphysema who have no significant comorbid conditions; each patient will be randomized to one of the two treatment groups. The study duration is 4.5 years with a close-out period of 6 months.

L21 ANSWER 3 OF 33 CAPLUS COPYRIGHT 2000 ACS DUPLICATE 1
Searcher : Shears 308-4994

ACCESSION NUMBER: 1999:241341 CAPLUS
DOCUMENT NUMBER: 130:316301
TITLE: Comparison of **Cryptosporidium**-specific and Giardia-specific monoclonal antibodies for monitoring water samples
AUTHOR(S): Ferrari, B. C.; **Vesey, G.; Weir, C.; Williams, K. L.; Veal, D. A.**
CORPORATE SOURCE: Centre for Analytical Biotechnology, School of Biological Sciences, Macquarie University, Sydney, NSW 2109, Australia
SOURCE: Water Res. (1999), 33(7), 1611-1617
CODEN: WATRAG; ISSN: 0043-1354
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Routine detection of **Cryptosporidium** oocysts and Giardia cysts depend on immunofluorescence assays (IFA) using fluorescently labeled monoclonal antibodies. Com. available mAbs used for the detection of **Cryptosporidium** oocysts are of the IgM or IgG3 subclass, while those used for Giardia anal. are of IgM and IgG classes including IgG1. These mAbs suffer from non-specific binding to detrital particles present in environmental samples resulting in high levels of background fluorescence. New mAbs of the IgG1 subclass to Giardia and **Cryptosporidium** selected primarily for water anal. have recently become available. These antibodies exhibited lower levels of non-specific particulate binding compared with com. available antibodies. The degree of background fluorescence obsd. following mAb staining of particles that were not oocysts or cysts varied between the water types analyzed.

REFERENCE COUNT: 20
REFERENCE(S):
(4) Dupont, H; New England Journal of Medicine 1995, V332(13), P855 MEDLINE
(5) Karanis, P; Immunutat and Infektion V21, P132 MEDLINE
(7) Lechevallier, M; Applied Environmental Microbiology 1991, V57, P2610 MEDLINE
(8) Lechevallier, M; Applied Environmental Microbiology 1991, V57, P2617 MEDLINE
(19) Vesey, G; Letters in Applied Microbiology 1997, V25, P316 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 4 OF 33 SCISEARCH COPYRIGHT 2000 ISI (R)
ACCESSION NUMBER: 1999:701613 SCISEARCH
THE GENUINE ARTICLE: 234DG
TITLE: Rationale and design of the National Emphysema Treatment Trial (NETT): A prospective randomized trial of lung volume reduction surgery
Searcher : Shears 308-4994

AUTHOR: Rodarte J; Miller C; Barnard P; Carter J; DuBose K; Flanigan T; Fox P; Haddad J; Hale K; Hood E; Jahn A; King K; Nguyen C; Norman S; Officer T; Reardon M; Ricketts J; Sax S; Tucker M; **Williams K**; Reilly J; Sugarbaker D; Fanning C; Birkenmaier K; Body S; Catanzano C; Duffy S; Formanek V; Fuhlbrigge A; Hartigan P; Hunsaker A; Jacobson F; Mark L; Russell R; Saunders D; Simons G; Swanson S; McKenna R; Mohsenifar Z; Geaga C; Aberle D; Brown J; Clark S; Cooper C; Ferrill R; Frantz R; Gelb A; Goldin J; Gordon J; Head D; Joyner M; Julien P; Levine M; Lewis M; Pendio M; Silverman J; Walker P; Williams B; Yegyan V; Yoou C; Maurer J; DeCamp M; Meli Y; Aviv L; Hearn C; Kraenzler E; Marlow S; McCarthy K; Mehta A; Meziane M; ODonovan P; Schilz R; Sullivan E; Ginsburg M; Scharf S; Jellen P; Asegu A; Austin J; Bartels M; Berkman Y; Berkoski P; Brogan F; Delphin E; Demercado G; DiMango A; DePrisco L; Gonzales J; Gotthelf J; Herman P; Khan A; Mantinaos M; McKeon K; Mets B; Pearson G; Pfeffer J; Rossoff L; Sunshine A; Simonelli P; Stavrolakes K; Thomashow B; Vilotijevic D; Yip C; MacIntyre N; Davis R D; Howe J; Crouch R; Grichnik K; Harpole D; Krichman A; Lawlor B; McAdams H; **Norten J**; RinaldoGallo S; Steele M; Tapson V; Hubmayr R; Deschamps C; Bartling S; Aughenbaugh G; Bradt K; Edgar M; Elliott B; Edell E; Garrett J; Hanson K; Hanson L; Harms G; Hartman T; Kalra S; Karsell P; Midthun D; Miller D; Mottram C; Odenbrett K; Swensen S; Sykes A M; Torres N; Utz J; Cherniack R; Make B; Gilmartin M; Buquor B; Canterbury J; Carlos M; Chetham P; Fernandez E; Geyman L; Lynch D; Newell J; Pomerantz M; Raymond C; Safilian B; Tolliver R; WhalenPrice J; Winner K; Zamora M; Diaz P; Ross P; Kelsey M; Dinant S; King M; Harter R; Mikelinich E; Rittenger D; Shaffer S; Naunheim K; Keller C; Osterloh J; Alvarez F; Borosh S; Bowen C; Frese S; Glockner J; Heiberg E; Hibbett A; Kleinhenz M E; McCain D; Ruppel G; Turnage W S; Criner G; Furukawa S; Kuzma A M; Barnette R; Boiselle P; Brester N; DAlonzo G; Gilmartin M; Keresztury M; Kish L; Lautensack K; Leonard E; Leyenson V; Lorenzon M; OBrien G; OGrady T; Rising P; Schartel S; Travaline J; Ries A; Kaplan R; Ramirez C; Brewer N; Colt H; Crawford S; Frankville D; Friedman P; Johnson J; Kapelanski D; Larsen C; Limberg T; Magliocca M; Olson L; Papatheofanis F J; Prewitt L; Resnikoff P; SassiDambron D; Krasna M; Orens J; Moskowitz I; Altemus M; Bochicchio D; Britt E J; Cook L; Fessler

Searcher : Shears 308-4994

H; Gaetani D; Gheorghiu I; Gilbert T; Hasnain J; Kearney A; Kim S; King K; Markus S; Miller N; Schneider R; Shade D; Silver K; Smith K; Turner C; Weir C; Wheeler J; White C; Martinez F; Iannettoni M; Meldrum C; Alexander J; Bria W; Campbell K; Christensen P; Foss C; Gill P; Kazanjian P; Kazerooni E; Knieper V; Lowenbergh N; Meldrum M; Miller R; Ojo T; Piergentili D; Poole L; Quint L; Rysso P; Spear M; True M; Woodcock B; Kaiser L; HansenFlaschen J; Wurster A; Alavi A; Alcorn T; Aronchick J; Arcasoy S; Aukberg S; Benedict B; Craemer S; Edelman J; Gefter W; KotlerKlein L; Kotloff R; Manaker S; Mendez J; Miller W; Miller W; Palevsky H; Russell W; Simcox R; Snedeker S; Tino G; Keenan R; Sciurba F; George E; Ayres G; Bauldoff G; Brown M; Costello P; Donahoe M; Fuhrman C; Hoffman R; Holbert M; Johnson P; Kopp T; Lacomis J; Sexton J; Silfies L; Slivka W; Strollo D; Sullivan E; Tullock W; Benditt J; Wood D; Snyder M; Anable K; Battaglia N; Boitano L; Bowdle A; Chan L; Chwalik C; Culver B; Godwin D; Golden S; Ibrahim A; Lockhart D; Marglin S; McDowell P; Nellum K; VanNorman G; Bosco L; Chiang Y P; Clancy C; Handelsman H; Piantadosi S (Reprint); Tonascia J; Belt P; Collins K; Collison B; Dawson C; Dawson D; Donithan M; Edmonds V; Harle J; Jackson R; Lee S; Levine C; Meinert J; Nowakowski D; Reshef D; Smith M; Simon B; Sternberg A; VanNatta M; Wise R; Kaplan R M; Chiang Y P; Fahs M C; Fendrick A M; Moskowitz A J; Pathak D; Ramsey S D; Richter E; Schwartz J S; Sheingold S; Shroyer A L; Wagner J; Yusen R; Waldhausen J; Bernard G; DeMets D; Hoover E; Levine R; Mahler D; McSweeney A J; WienerKronish J; Williams O D; Younes M; Sheingold S; McVearry K; Mone C; ProctorYoung J; Fishman A P; Weinmann G; Deshler J; Albert P; Hurd S; Kiley J; Wu M

CORPORATE SOURCE: NETT COORDINATING CTR, JOHNS HOPKINS CTR CLIN TRIALS, JOHNS HOPKINS SCH HYG & PUBL HLTH, BALTIMORE, MD 21205 (Reprint); NETT COORDINATING CTR, JOHNS HOPKINS CTR CLIN TRIALS, JOHNS HOPKINS SCH HYG & PUBL HLTH, BALTIMORE, MD 21205

COUNTRY OF AUTHOR: USA

SOURCE: JOURNAL OF THORACIC AND CARDIOVASCULAR SURGERY, (SEP 1999) Vol. 118, No. 3, pp. 518-528.
Publisher: MOSBY-YEAR BOOK INC, 11830 WESTLINE INDUSTRIAL DR, ST LOUIS, MO 63146-3318.
ISSN: 0022-5223.

DOCUMENT TYPE: Article; Journal

FILE SEGMENT: LIFE; CLIN

LANGUAGE: English
REFERENCE COUNT: 40

L21 ANSWER 5 OF 33 CAPLUS COPYRIGHT 2000 ACS DUPLICATE 2
ACCESSION NUMBER: 1998:789173 CAPLUS
DOCUMENT NUMBER: 130:24095
TITLE: Antibodies to **Cryptosporidium**
INVENTOR(S): **Vesey, Graham; Weir, Christopher; Williams, Keith Leslie ; Slade, Martin Basil; Veal, Duncan**
PATENT ASSIGNEE(S): Macquarie Research Ltd., Australia; Australian Water Technologies Pty. Ltd.
SOURCE: PCT Int. Appl., 40 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9852974	A1	19981126	WO 1998-AU368	19980519
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9875117	A1	19981211	AU 1998-75117	19980519
EP 991667	A1	20000412	EP 1998-922500	19980519
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
PRIORITY APPLN. INFO.:			AU 1997-6962	19970519
			AU 1997-8242	19970725
			WO 1998-AU368	19980519

AB The authors disclose methods of producing IgG1 subclass antibodies reactive to the surface of **Cryptosporidium** oocysts. The methods comprise: (a) sepg. at least a portion of the **Cryptosporidium** oocyst cell wall from the internal sporozoites to form an oocyst-wall prepn.; (b) treating the sepd. oocyst-wall prepn. to obtain an oocyst antigen prepn.; (c) immunizing an animal with the oocyst antigen prepn. to elicit an IgG1 immune response in the animal; and (d) obtaining from the animal IgG1 antibodies reactive to the surface of **Cryptosporidium** oocysts. IgG1 antibodies reactive to the

surface of **Cryptosporidium** oocysts.
REFERENCE COUNT: 8
REFERENCE(S): (1) Bonnin, A; Infection and Immunity 1991, V59(5), P1703 MEDLINE
(2) Bonnin, A; Journal of Eukaryotic Microbiology 1995, V42(4), P395 MEDLINE
(4) Macquarie Research Ltd; WO 97/08204 1997 CAPLUS
(7) Petersen, C; Infection and Immunity 1992, V60(6), P2343 CAPLUS
(8) Riggs, M; Infection and Immunity 1994, V62(5), P1927 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 6 OF 33 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1999:382071 CAPLUS
DOCUMENT NUMBER: 131:106402
TITLE: Specific antibodies for water testing: the good the bad and the IgG1
AUTHOR(S): **Weir, C.**; **Vesey, G.**; **Slade, M.**; Ferrari, B.; Williams, L.; **Veal, D. A.**
CORPORATE SOURCE: School of Biological Sciences, Macquarie University, 2109, Australia
SOURCE: Proc. - Water Qual. Technol. Conf. (1998) 1914-1917
CODEN: PWQCD2; ISSN: 0164-0755
PUBLISHER: American Water Works Association
DOCUMENT TYPE: Journal; (computer optical disk)
LANGUAGE: English
AB A highly antigenic ext. of the **Cryptosporidium** oocyst wall was developed and used to induce a strong IgG response in mice. Following fusion of mouse spleen cells with mouse myeloma cells a hybridoma cell line secreting a highly specific IgG1 monoclonal antibody (Cry 104) to the walls of **Cryptosporidium** oocysts was produced. This antibody has a high specificity for oocysts and does not bind to detritus particles in water and is now in routine use for detecting **Cryptosporidium** in water.
REFERENCE COUNT: 8
REFERENCE(S): (1) Connolly, G; Gut 1988, V29, P593 MEDLINE
(4) Safarik, I; Journal of Applied Bacteriology 1995, V78, P575 MEDLINE
(6) Tzipori, S; Advances in Parasitology 1988, V27, P63 MEDLINE
(7) Vesey, G; Journal of Applied Bacteriology 1993, V75, P87 MEDLINE
(8) Vesey, G; Letters in Applied Microbiology 1997, V25, P316 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT
Searcher : Shears 308-4994

L21 ANSWER 7 OF 33 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1999:382051 CAPLUS
DOCUMENT NUMBER: 131:106399
TITLE: Application of fluorescence in-situ hybridization (FISH) for the routine, simultaneous determination of **Cryptosporidium** parvum species and viability in environmental samples
AUTHOR(S): Smith, James J.; **Vesey, Graham**; Dorsch, Matthias; Scandizzo, Phillip; Ashbolt, Nicholas; Deere, Daniel; **Veal, Duncan**
CORPORATE SOURCE: Australian Environmental Flow Cytometry Group, School of Biological Sciences, Macquarie University, Sydney, 2109, Australia
SOURCE: Proc. - Water Qual. Technol. Conf. (1998) 1893-1899
CODEN: PWQCD2; ISSN: 0164-0755
PUBLISHER: American Water Works Association
DOCUMENT TYPE: Journal; (computer optical disk)
LANGUAGE: English

AB Currently-employed techniques for the detection of **Cryptosporidium** sp. oocysts in the environment are unable to distinguish **Cryptosporidium** parvum from other non-human-pathogenic **Cryptosporidium** species. In addn., they are not broadly suitable for routine detns. of oocyst viability. We have evaluated 18S rRNA (rRNA) Fluorescence-in-situ Hybridization (FISH) probes for the simultaneous detn. of C. parvum species and viability during routine anal. procedures. We examd. the correlation between FISH and in-vitro excystation assays for detns. of viability during chlorine disinfection, as well as species specificity for C. parvum. In addn., we studied the stability of the probe target rRNA during immunomagnetic sepn. (IMS) and flow cytometric isolation of oocysts from water conc. detrital material, and upon lab. storage in PBS. The effects of chlorine on immunofluorescence staining was also examd. Data indicated a good general correlation between excystation and FISH for detns. of oocyst viability over 15 days exposure to 0- 15 ppm sodium hypochlorite. Probe rRNA target was stable through IMS and FACS purifn. of oocysts. Target half-life was estd. at 55 h after oocyst permeabilization in PBS at room temp. The addn. of RNAse significantly reduced, or eliminated probe binding. The effects of RNAse appeared to be significantly reduced by addn. of RNAsein to bulk water conc. samples. The utility of FISH for use in routine environmental anal. lab. protocols is discussed.

REFERENCE COUNT: 14
REFERENCE(S): (1) Amann, R; Microbiology Reviews 1995, V59, P143 CAPLUS
(5) Grimason, A; Wat Res 1994, V28, P733 CAPLUS

(11) Vesey, G; J Appl Microbiol 1998, V85 CAPLUS
(12) Vesey, G; Protozoan Parasites and Water ed 1995, P133 CAPLUS
(13) Wallner, G; Cytometry 1993, V14, P136 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 8 OF 33 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1999:382039 CAPLUS
DOCUMENT NUMBER: 131:120437
TITLE: High affinity IgG1 antibodies to **Cryptosporidium** and Giardia give improved recoveries from water samples using immunomagnetic separation (IMS)
AUTHOR(S): Scandizzo, P.; **Vesey, G.**; Gauci, M.; Baer, D.; **Veal, D. A.**
CORPORATE SOURCE: Australian Environmental Flow Cytometry Group (AEFCG), School of Biological Sciences, Macquarie University, 2109, Australia
SOURCE: Proc. - Water Qual. Technol. Conf. (1998) 1890-1892
CODEN: PWQCD2; ISSN: 0164-0755
PUBLISHER: American Water Works Association
DOCUMENT TYPE: Journal; (computer optical disk)
LANGUAGE: English
AB The development of a highly efficient immunomagnetic sepn. (IMS) procedure for the selective isolation of **Cryptosporidium** oocysts and Giardia cysts from a range of water samples is described. The efficiency of the IMS procedure was evaluated on a range of water types. The optimized system developed used highly specific IgG1 antibodies to **Cryptosporidium** oocysts and Giardia cysts conjugated to paramagnetic beads. Using the optimized procedure, recoveries for **Cryptosporidium** oocysts from concd. water samples averaged 87% with a std. deviation of 6% and recovery of Giardia cysts averaged 84% with a std. deviation of 12%. Evaluation of com. available IMS kits which use IgM and IgG3 antibodies have resulted in recoveries of oocysts of less than 50% from the various water types tested. Selective enrichment of concd. water samples with the IMS procedure reduced the time required to analyze the samples by fluorescence activated cell sorting (FACS) to between 5 and 7 min and subsequent visualization and enumeration by microscopy was reduced to between 5 and 16 min when IMS was used to isolate oocysts and cysts from environmental water samples prior to FACS anal. The system allows for the simultaneous treatment of up to 24 samples and subsequent anal. by FACS and enumeration using microscopy. The system provides consistent and rapid recovery from a wide range of water samples and compliments the use of flow cytometry.
REFERENCE COUNT: 5

REFERENCE(S): (1) Adam, D; The biology of Giardia spp Microbiol Rev 1991, V55, P706
(2) Current, W; Clin Microbiol Rev 1991, V4, P325 MEDLINE
(3) Ongerth, J; Applied and Environmental Microbiology 1987, V53, P672 MEDLINE
(4) Rose, J; Water Science and Technology 1986, V18, P233 CAPLUS
(5) Scandizzo, P; Letters in Applied Microbiology submitted 1998

L21 ANSWER 9 OF 33 CAPLUS COPYRIGHT 2000 ACS DUPLICATE 3
ACCESSION NUMBER: 1998:611661 CAPLUS
DOCUMENT NUMBER: 129:347030
TITLE: Viable **Cryptosporidium** parvum oocysts exposed to chlorine or other oxidizing conditions may lack identifying epitopes
AUTHOR(S): Moore, A. G.; **Vesey, G.**; Champion, A.; Scandizzo, P.; Deere, D.; **Veal, D.**; **Williams, K. L.**
CORPORATE SOURCE: Department of Biological Sciences, University of Western Sydney-Nepean, Sydney, NSW 2145, Australia
SOURCE: Int. J. Parasitol. (1998), 28(8), 1205-1212
CODEN: IJPYBT; ISSN: 0020-7519
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The intestinal protozoan parasite **Cryptosporidium** parvum is a known cause of water-borne disease in humans. The detection of **Cryptosporidium** oocysts in water samples relies upon the use of fluorescently labeled antibodies, preferably using flow cytometry and epifluorescence microscopy. Here we demonstrate that four com. available antibodies recognize a similar set of immunodominant epitopes on the oocyst wall. These epitopes appear to be carbohydrate in nature and are labile to chlorine treatment and oxidising conditions. Sodium hypochlorite and sodium meta-periodate reduced the ability of the antibodies to detect **Cryptosporidium** oocysts. Damage to the epitopes did not necessarily reduce the viability of oocysts. This finding may be important for the water industry, where naturally occurring oxidising conditions or sanitising treatments could produce viable oocysts that are undetectable using std. protocols.

L21 ANSWER 10 OF 33 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1999:382133 CAPLUS
DOCUMENT NUMBER: 131:106411
TITLE: The next generation of **Cryptosporidium** detection methods: two-color fluorescence,

'analysis-only' flow cytometry
AUTHOR(S): Ferrari, B.; **Vesey, G.**; Gauci, M.; **Veal, D.**
CORPORATE SOURCE: School of Biological Sciences, Macquarie University, Sydney, NSW 2109, Australia
SOURCE: Proc. - Water Qual. Technol. Conf. (1998) 1112-1117
CODEN: PWQCD2; ISSN: 0164-0755
PUBLISHER: American Water Works Association
DOCUMENT TYPE: Journal; (computer optical disk)
LANGUAGE: English

AB Routine detection of **Cryptosporidium** oocysts relies on immunofluorescence assays (IFA) employing fluorescently labeled monoclonal antibodies (mAbs). MAbs used for detection bind non-specifically to detrital particles present in environmental samples resulting in high levels of background fluorescence. A new mAb (Cry104) to **Cryptosporidium** of the IgG1 subclass exhibited lower levels of non-specific binding to detritus in water samples compared with com. available antibodies. The specificity of Cry104 has allowed preliminary investigations into two color 'anal.-only' flow cytometry by utilizing two selection parameters. Two color flow cytometry results in a significant redn. in fluorescent detrital material being detected following anal.

REFERENCE COUNT: 6
REFERENCE(S):
(1) Ferrari, B; To be published in Water Research 1998
(2) Ongerth, J; Applied and Environmental Microbiology 1987, V53, P672 MEDLINE
(4) Vesey, G; Cytometry 1997, V29, P147 MEDLINE
(5) Vesey, G; Journal of Applied Bacteriology 1993, V75, P87 MEDLINE
(6) Vesey, G; Letters in Applied Microbiology 1997, V25, P316 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 11 OF 33 CAPLUS COPYRIGHT 2000 ACS DUPLICATE 4
ACCESSION NUMBER: 1998:796941 CAPLUS
DOCUMENT NUMBER: 130:179477
TITLE: Rapid method for fluorescent in situ ribosomal RNA labeling of **Cryptosporidium** parvum
AUTHOR(S): Deere, D.; **Vesey, G.**; Milner, M.; **Williams, K.**; Ashbolt, N.; **Veal, D.**
CORPORATE SOURCE: Macquarie University Centre for Analytical Biotechnology, School of Biological Sciences, Macquarie University, Sydney, Australia
SOURCE: J. Appl. Microbiol. (1998), 85(5), 807-818
CODEN: JAMIFK; ISSN: 1364-5072
PUBLISHER: Blackwell Science Ltd.

DOCUMENT TYPE: Journal
LANGUAGE: English
AB A method for fluorescence in situ hybridization (FISH) is described that requires less than 1 h duration. Oocysts were resuspended in 50% ethanol and incubated at 80.degree.C for 10 min for simultaneous fixation and permeabilization. Samples were then incubated with the oligonucleotide probe at 48.degree.C for more than 30 min. The rRNA binding specificity of the optimized protocol was confirmed. FISH was found to be valuable as a second label for oocysts presumptively identified immunofluorescently, but required more than an order of magnitude signal amplification for independent use. The no. of oligonucleotide probes bound per oocyst was compared with the copy no. of 18S rRNA mols. per oocyst to provide a measure of the labeling efficiency of the FISH method. Hybridization kinetics were also analyzed. These data indicate that significant further increases in the brightness of FISH-labeled oocysts cannot be achieved by further optimization of the pre-treatment and hybridization conditions.
REFERENCE COUNT: 32
REFERENCE(S): (1) Amann, R; Applied and Environmental Microbiology 1990, V56, P1919 CAPLUS
(2) Amann, R; Microbiological Reviews 1995, V59, P143 CAPLUS
(5) Darzynkiewicz, Z; Methods:A Companion to Methods in Enzymology 1991, V2, P200 CAPLUS
(6) Deere, D; Yeast 1998, V14, P147 CAPLUS
(7) Delong, E; Science 1989, V243, P1360 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 12 OF 33 MEDLINE DUPLICATE 5
ACCESSION NUMBER: 1998297316 MEDLINE
DOCUMENT NUMBER: 98297316
TITLE: Water quality in rural Australia.
AUTHOR: Thurman R; Faulkner B; **Veal D**; Cramer G; Meiklejohn M
CORPORATE SOURCE: Australian Catholic University, Ballarat, Victoria, Australia.. r.thurman@aquinas.acu.edu.au
SOURCE: JOURNAL OF APPLIED MICROBIOLOGY, (1998 Apr) 84 (4) 627-32.
Journal code: CT3. ISSN: 1364-5072.
PUB. COUNTRY: ENGLAND: United Kingdom
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199809
ENTRY WEEK: 19980902
AB Grab samples of drinking water collected from reservoirs and from creeks flowing over pristine land, farmland or land having mixed use were analysed for their physicochemical and microbiological

characteristics. A significant difference between sites for conductivity and sites for pH was noted using a two-way ANOVA. No significant interactions were detected between any of the other parameters: Giardia, **Cryptosporidium**, Escherichia coli, coliforms, plate count, turbidity or rainfall.

L21 ANSWER 13 OF 33 CAPLUS COPYRIGHT 2000 ACS DUPLICATE 6
ACCESSION NUMBER: 1998:637910 CAPLUS
DOCUMENT NUMBER: 130:61705
TITLE: The use of a ribosomal RNA targeted oligonucleotide probe for fluorescent labeling of viable **Cryptosporidium** parvum oocysts
AUTHOR(S): **Vesey, G.**; Ashbolt, N.; Fricker, E. J.; Deere, D.; **Williams, K. L.**; **Veal, D. A.**; Dorsch, M.
CORPORATE SOURCE: Macquarie University Centre for Analytical Biotechnology, School of Biological Sciences, Macquarie University, NSW 2109, Australia
SOURCE: J. Appl. Microbiol. (1998), 85(3), 429-440
CODEN: JAMIFK; ISSN: 1364-5072
PUBLISHER: Blackwell Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A fluorescence in situ hybridization (FISH) technique has been developed for the fluorescent labeling of **Cryptosporidium** parvum oocysts in water samples. The FISH technique employs a fluorescently labeled oligonucleotide probe (Cry1 probe) targeting a specific sequence in the 18S rRNA (rRNA) of C.parvum. Hybridization with the Cry1 probe resulted in fluorescence of sporozoites within oocysts that were capable of excystation, while oocysts that were dead prior to fixation did not fluoresce. Correlation of the FISH method with viability as measured by in vitro excystation was statistically highly significant, with a calcd. correlation coeff. of 0.cntdot.998. Examn. of sequence data for **Cryptosporidium** spp. other than C. parvum suggests that the Cry1 probe is C. parvum-specific. In addn., 19 isolates of C. parvum were tested, and all fluoresced after hybridization with the Cry1 probe. Conversely, isolates of C. baileyi and C. muris were tested and found not to fluoresce after hybridization with the Cry1 probe. The fluorescence of FISH-stained oocysts was not bright enough to enable detection of oocysts in environmental water concs. contg. autofluorescent algae and mineral particles. However, in combination with immunofluorescence staining, FISH enabled species-specific detection and viability detn. of C. parvum oocysts in water samples.
REFERENCE COUNT: 31
REFERENCE(S): (1) Amann, R; Applied and Environmental Microbiology 1990, V56, P1919 CAPLUS

(2) Amann, R; Applied and Environmental Microbiology 1992, V58, P3007 CAPLUS
(3) Amann, R; Microbiology Reviews 1995, V59, P143 CAPLUS
(4) Campbell, A; Applied and Environmental Microbiology 1992, V58, P3488 CAPLUS
(9) Haugland, R; Methods in Molecular Biology Monoclonal Antibody Protocols 1995, V45, P205 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 14 OF 33 MEDLINE DUPLICATE 7
ACCESSION NUMBER: 1999088520 MEDLINE
DOCUMENT NUMBER: 99088520
TITLE: Evaluation of fluorochromes for flow cytometric detection of **Cryptosporidium** parvum oocysts labelled by fluorescent in situ hybridization.
AUTHOR: Deere D; **Vesey G**; Ashbolt N; Davies K A; **Williams K L**; **Veal D**
CORPORATE SOURCE: Macquarie University Centre for Analytical Biotechnology, School of Biological Sciences, Macquarie University, Sydney, Australia.
SOURCE: LETTERS IN APPLIED MICROBIOLOGY, (1998 Dec) 27 (6) 352-6.
Journal code: AL0. ISSN: 0266-8254.
PUB. COUNTRY: ENGLAND: United Kingdom
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199903
ENTRY WEEK: 19990303
AB Oligonucleotide probes specific to **Cryptosporidium** parvum (CRY1) were conjugated with a range of fluorochromes. The fluorescence after in situ hybridization (FISH) labelling of oocysts and controls was assessed. The objective was to determine the most suitable conjugate for FISH labelling, followed by analysis with a 488 nm laser flow cytometer. The most promising candidate was fluorescein isothiocyanate but only when linked to the CRY1 probe via an 18-carbon spacer arm consisting of six ethylene glycol moieties. The use of the spacer increased fluorescent signals fivefold compared with an equivalent probe in which the FITC was linked directly to the 5'-amino group of the DNA.

L21 ANSWER 15 OF 33 CAPLUS COPYRIGHT 2000 ACS DUPLICATE 8
ACCESSION NUMBER: 1997:281126 CAPLUS
DOCUMENT NUMBER: 126:261262
TITLE: Methods for detection of **cryptosporidium** oocysts
INVENTOR(S): **Vesey, Graham**; **Williams, Keith**
Searcher : Shears 308-4994

; **Veal, Duncan**; Champion, Alan; Pererva, Natalia

PATENT ASSIGNEE(S): Macquarie Research Ltd., Australia; Australian Water Technologies Pty Ltd; Vesey, Graham; Williams, Keith; Veal, Duncan; Champion, Alan; Pererva, Natalia

SOURCE: PCT Int. Appl., 24 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9708204	A1	19970306	WO 1996-AU543	19960830
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI				
AU 9667811	A1	19970319	AU 1996-67811	19960830
EP 859791	A1	19980826	EP 1996-928273	19960830
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
PRIORITY APPLN. INFO.:			AU 1995-5146	19950830
			WO 1996-AU543	19960830

AB A method is presented for detecting the presence of viable **Cryptosporidium** oocysts in samples. The method comprises the steps of a) treating the sample so as to cause any viable oocysts of **Cryptosporidium** to excyst, b) exposing the treated sample to a fluorescent monoclonal antibody that binds specifically to recently excysted **Cryptosporidium** oocysts and c) detecting the presence (fluorescence) of oocyst-bound antibody in the sample. The oocysts can be cause to excyst by incubating the sample at 37C at pH 2-4 for 10-20 min, followed by incubating the sample at 37C at pH 7-9 for 10-60 min. The binding of non-fluorescent antibody to recently excysted oocytes can also be measured indirectly by further treating the sample with a fluorescently-labeled ligand that binds specifically to the antibody and measuring the binding of the labeled ligand to the oocyte-bound antibody.

L21 ANSWER 16 OF 33 MEDLINE DUPLICATE 9
ACCESSION NUMBER: 1998083501 MEDLINE
DOCUMENT NUMBER: 98083501
TITLE: Simple and rapid measurement of

Cryptosp ridium excystation using flow cytometry.

AUTHOR: **Vesey G**; Griffiths K R; Gauci M R; Deere D; **Williams K L**; **Veal D A**

CORPORATE SOURCE: Macquarie University Centre for Analytical Biotechnology, School of Biological Sciences, Macquarie University, Sydney, NSW, Australia.. gvesey@rna.bio.mq.edu.au

SOURCE: INTERNATIONAL JOURNAL FOR PARASITOLOGY, (1997 Nov) 27 (11) 1353-9.
Journal code: GSB. ISSN: 0020-7519.

PUB. COUNTRY: ENGLAND: United Kingdom
Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199804

ENTRY WEEK: 19980403

AB In vitro excystation is commonly used to determine the viability of samples of purified **Cryptosporidium** parvum oocysts. Following exposure to conditions that stimulate excystation, samples are examined microscopically to determine the number of excysted oocysts. The microscopy procedure is tedious and time consuming, and difficult to apply to most oocyst samples without a purification step. A simple flow cytometric method was developed for determining the numbers of oocysts that had excysted following the in vitro excystation procedure. Differences in light-scatter properties were used to differentiate intact, partially empty and empty oocysts. By staining samples with a monoclonal antibody specific to the oocyst wall it was possible to apply the technique to unpurified oocysts from faeces. Correlation of the flow cytometric and microscopic method was statistically significant ($P < 0.05$), resulting in a calculated correlation coefficient of 0.994. The flow cytometry method is faster and more sensitive than the microscopy procedure, and enables analysis of large numbers of samples and of many thousands of oocysts in each sample.

L21 ANSWER 17 OF 33 CAPLUS COPYRIGHT 2000 ACS DUPLICATE 10

ACCESSION NUMBER: 1997:795178 CAPLUS

DOCUMENT NUMBER: 128:66114

TITLE: A simple method for evaluating **Cryptosporidium**-specific antibodies used in monitoring environmental water samples

AUTHOR(S): **Vesey, G.**; Deere, D.; **Weir, C. J.**; Ashbolt, N.; **Williams, K. L.**; **Veal, D. A.**

CORPORATE SOURCE: Macquarie University Centre for Analytical Biotechnology, School of Biological Sciences, Macquarie University, Sydney, NSW 2109, Australia

Searcher : Shears 308-4994

SOURCE: Lett. Appl. Microbiol. (1997), 25(5), 316-320
CODEN: LAMIE7; ISSN: 0266-8254
PUBLISHER: Blackwell Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A simple method is described for the evaluation and quality control of **Cryptosporidium**-specific antibodies used in monitoring environmental water samples. Purified oocysts were fluorescently labeled with a test antibody at the appropriate concn. Labeled oocysts were analyzed using flow cytometry, and a region was defined on a bivariate dotplot of fluorescence vs. light scatter that enclosed all oocysts. Concs. of environmental water samples that did not contain oocysts were then incubated with the test antibody and analyzed using flow cytometry. The no. of particles that appeared in the region defined for oocysts was recorded and was a measure of nonspecific binding. The technique provides a simple, rapid, and quant. tool for both evaluating the binding specificity of test antibodies and optimizing sample staining conditions.

L21 ANSWER 18 OF 33 MEDLINE DUPLICATE 11

ACCESSION NUMBER: 97473979 MEDLINE
DOCUMENT NUMBER: 97473979
TITLE: Evaluation of fluorochromes and excitation sources for immunofluorescence in water samples.
AUTHOR: **Vesey G**; Deere D; Gauci M R; Griffiths K R; **Williams K L**; **Veal D A**
CORPORATE SOURCE: Macquarie University Centre for Analytical Biotechnology, School of Biological Sciences, Macquarie University, Sydney, Australia.. GVESEY@rna.bio.mq.edu.au
SOURCE: CYTOMETRY, (1997 Oct 1) 29 (2) 147-54.
Journal code: D92. ISSN: 0196-4763.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199801

AB Fluorescent labelling methods for detecting microorganisms in water have limited sensitivity partly due to the natural autofluorescence from environmental particles. The aim of this study was to examine the autofluorescence of water samples to determine the optimal excitation source and fluorescent labels for minimising background autofluorescence and therefore enhancing sensitive detection of **Cryptosporidium** oocysts. Particles concentrated from water were examined using fluorimetry at a wide range of excitation wavelengths to determine their autofluorescent properties. Two major peaks were identified emitting at 390 to 510 nm and at 640 to 700 nm. Flow cytometry was used to define the optical properties of oocysts immunofluorescently labelled with a range of fluorochromes.

Concentrated water samples were analysed using flow cytometry and the number of particles with fluorescence and light scatter properties similar to the fluorescently labelled oocysts recorded. Fluorescein isothiocyanate exited at 488 nm was the most suitable label for oocysts in untreated water with less than 70 particles having optical properties similar to labelled oocysts, detected in 10 litre concentrates. The fluorochromes CY3, phycoerythrin (PE), and tetramethylrhodamine B thioisocyanate (TRITC) excited at 542 nm were the most suitable labels for oocysts in drinking water with less than 40 particles having optical properties similar to labelled oocysts, detected in 100 litre concentrates.

L21 ANSWER 19 OF 33 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1999:322083 CAPLUS
DOCUMENT NUMBER: 131:140076
TITLE: Fluorescent in-situ labeling of viable **Cryptosporidium** parvum in water samples
AUTHOR(S): **Vesey, G.**; Deere, D.; Dorsch, M.; **Veal, D.**; **Williams, K.**; Ashbolt, N.
CORPORATE SOURCE: Macquarie University Centre for Analytical Biotechnology, School of Biological Sciences, Macquarie University, Sydney, 2109, Australia
SOURCE: 1997 Int. Symp. Waterborne Cryptosporidium, Proc. (1997), 21-29. Editor(s): Fricker, Colin R.; Clancy, Jennifer L.; Rochelle, Paul A. American Water Works Association: Denver, Colo. CODEN: 67PCA2
DOCUMENT TYPE: Conference
LANGUAGE: English
AB A fluorescent in-situ hybridization (FISH) technique has been developed and optimized for fluorescent labeling of **Cryptosporidium** parvum oocysts in water samples. The FISH technique employs a fluorescently labeled oligonucleotide probe (Cry1 probe) targeting a specific sequence on the 18S rRNA (rRNA) of C. parvum. The results of initial trials demonstrate the Cry1 probe to be C. parvum specific. Hybridization with the Cry1 probe resulted in fluorescence of sporozoites within whole oocysts that were still capable of excystation, while oocysts that were dead when fixed only fluoresced at background levels. The FISH technique can be combined with immunofluorescent staining to enable the detection and viability assessment of C. parvum oocysts in water samples. It should be noted, however, that the effect of sample concn. methods on the viability of oocysts has yet to be detd.
REFERENCE COUNT: 11
REFERENCE(S): (3) Graczyk, T; American Journal of Tropical Medicine and Hygiene 1996, V54, P274 MEDLINE
(5) Rose, J; Applied and Environmental Microbiology 1989, V55, P3189 CAPLUS

Searcher : Shears 308-4994

(6) Vesey, G; Cytometry 1994, V16, P1 MEDLINE
(7) Vesey, G; Methods in Cell Biology, Volume 42-Flow Cytometry. Second Edition 1994, P489 MEDLINE
(11) Wallner, G; Cytometry 1993, V14, P136 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 20 OF 33 CAPLUS COPYRIGHT 2000 ACS DUPLICATE 12
ACCESSION NUMBER: 1997:48719 CAPLUS
DOCUMENT NUMBER: 126:55922
TITLE: Method for the detection of viable **Cryptosporidium** parvum oocysts
INVENTOR(S): **Vesey, Graham**; **Veal, Duncan**; **Williams, Keith Leslie**; Ashbolt, Nicholas John; Dorsch, Matthias
PATENT ASSIGNEE(S): Macquarie Research Limited, Australia; Sydney Water Corporation Limited; Vesey, Graham; Veal, Duncan; Williams, Keith Leslie; Ashbolt, Nicholas John; Dorsch, Matthias
SOURCE: PCT Int. Appl., 22 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9634978	A1	19961107	WO 1996-AU274	19960506
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN				
AU 9654920	A1	19961121	AU 1996-54920	19960506
AU 707811	B2	19990722		
EP 840799	A1	19980513	EP 1996-911859	19960506
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				

PRIORITY APPLN. INFO.: AU 1995-2831 19950505
WO 1996-AU274 19960506

AB Oligonucleotide mols. and methods are disclosed for the detection of viable oocysts or other cells of the protozoa species C. parvum. Preferred oligonucleotide mols. are selected from the group comprising oligonucleotides having .gtoreq.1 of the following sequences: (1) ACA ATT AAT, (2) CTT TTT GGT, (3) AAT TTA TAT AAA ATA

TTT TGA TGA A, (4) TTT TTT TTT TTA GTA T, (5) TAT ATT TTT TAT CTG, and (6) CTT TAC TTA CAT GGA TAA CCG, or comprising a part of the sequences 1-6 above to allow specific hybridization to unique 18S rRNA sequences of C. parvum.

L21 ANSWER 21 OF 33 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1995:844431 CAPLUS
DOCUMENT NUMBER: 123:247828
TITLE: Assessing **Cryptosporidium** parvum oocyst viability with fluorescent in situ hybridization using ribosomal RNA probes and flow cytometry
AUTHOR(S): **Vesey, G.**; Ashbolt, N.; Wallner, G.; Dorsch, M.; **Williams, K.**; **Veal, D.**
CORPORATE SOURCE: School Biological Sciences, Macquarie University, Sydney, 2109, Australia
SOURCE: Spec. Publ. - R. Soc. Chem. (1995), 168(Protozoan Parasites and Water), 133-8
CODEN: SROCDO; ISSN: 0260-6291
DOCUMENT TYPE: Journal
LANGUAGE: English
AB This study shows that FISH using a rRNA-directed probe can be used for assessing the viability of **Cryptosporidium** parvum oocysts. Oocysts contg. fluorescent sporozoites after hybridization with the probes are viable and oocysts which do not fluoresce are dead. The reason that dead oocysts do not stain is because the rRNA which the probes bind to deteriorates rapidly and in dead oocysts is not present in sufficient copy nos. to be detected.

L21 ANSWER 22 OF 33 BIOSIS COPYRIGHT 2000 BIOSIS
ACCESSION NUMBER: 1995:44806 BIOSIS
DOCUMENT NUMBER: PREV199598059106
TITLE: Detection of specific microorganisms in environmental samples using flow cytometry.
AUTHOR(S): **Vesey, Graham (1)**; Narai, Joe; Ashbolt, Nicholas; **Williams, Keith (1)**; **Veal, Duncan (1)**
CORPORATE SOURCE: (1) Sch. Biol. Sci., Macquarie Univ., Sydney, NSW 2109 Australia
SOURCE: Darzynkiewicz, Z. [Editor]; Robinson, J. P. [Editor]; Crissman, H. A. [Editor]. Methods in Cell Biology, (1994) Vol. 42, pp. 489-522. Methods in Cell Biology; Flow cytometry, Part B, Second edition.
Publisher: Academic Press, Inc. 1250 Sixth Ave., San Diego, California 92101, USA.
ISSN: 0091-679X. ISBN: 0-12-564143-5 (cloth), 0-12-203052-4 (paper).
DOCUMENT TYPE: Book

LANGUAGE: English

L21 ANSWER 23 OF 33 SCISEARCH COPYRIGHT 2000 ISI (R)
ACCESSION NUMBER: 95:78308 SCISEARCH
THE GENUINE ARTICLE: BB98S
TITLE: DETECTION OF SPECIFIC MICROORGANISMS IN ENVIRONMENTAL-SAMPLES USING FLOW-CYTOMETRY
AUTHOR: **VESEY G (Reprint)**; NARAI J; ASHBOLT N; **WILLIAMS K**; **VEAL D**
CORPORATE SOURCE: MACQUARIE UNIV, SCH BIOL SCI, SYDNEY, NSW 2109, AUSTRALIA (Reprint); MACQUARIE UNIV, COMMONWEALTH CTR LASER APPLICAT, SYDNEY, NSW 2109, AUSTRALIA; AUSTRALIAN WATER TECHNOL, SYDNEY, NSW 2114, AUSTRALIA
COUNTRY OF AUTHOR: AUSTRALIA
SOURCE: METHODS IN CELL BIOLOGY, (1994) Vol. 42, pp. 489-522
ISSN: 0091-679X.
DOCUMENT TYPE: General Review; Journal
FILE SEGMENT: LIFE
LANGUAGE: ENGLISH
REFERENCE COUNT: 88

L21 ANSWER 24 OF 33 MEDLINE DUPLICATE 13
ACCESSION NUMBER: 94307080 MEDLINE
DOCUMENT NUMBER: 94307080
TITLE: Application of flow cytometric methods for the routine detection of **Cryptosporidium** and Giardia in water.
AUTHOR: **Vesey G**; Hutton P; Champion A; Ashbolt N; **Williams K L**; Warton A; **Veal D**
CORPORATE SOURCE: School of Biological Sciences, Macquarie University, Sydney, Australia..
SOURCE: CYTOMETRY, (1994 May 1) 16 (1) 1-6.
Journal code: D92. ISSN: 0196-4763.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199410
AB **Cryptosporidium** and Giardia are common causes of waterborne disease. The currently used methods of detecting these organisms in water rely on filtration capture, immunofluorescence labelling, and epifluorescence microscopy. These methods are inefficient, labour intensive, and require a highly skilled microscopist. We describe an alternative technique using flocculation concentration, followed by flow cytometry with fluorescence activated cell sorting. Environmental samples were analysed, and protozoan-like particles were sorted and collected

before confirmation with epifluorescence microscopy. The technique was found to be significantly more sensitive and considerably faster than the conventional methods.

L21 ANSWER 25 OF 33 MEDLINE DUPLICATE 14
ACCESSION NUMBER: 93374671 MEDLINE
DOCUMENT NUMBER: 93374671
TITLE: Routine monitoring of **Cryptosporidium** oocysts in water using flow cytometry.
AUTHOR: **Vesey G**; Slade J S; Byrne M; Shepherd K; Dennis P J; Fricker C R
CORPORATE SOURCE: Thames Water Utilities Ltd, Spencer House Laboratories, Reading, UK..
SOURCE: JOURNAL OF APPLIED BACTERIOLOGY, (1993 Jul) 75 (1) 87-90.
Journal code: HDJ. ISSN: 0021-8847.
PUB. COUNTRY: ENGLAND: United Kingdom
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199312
AB A flow cytometric method for the routine analysis of environmental water samples for the presence of **Cryptosporidium** oocysts has been developed. It uses a Coulter Epics Elite flow cytometer to examine water samples and to separate oocysts from contaminating debris by cell sorting. The sorted particles are then rapidly screened by microscopy. The method has been evaluated and compared with direct epifluorescence microscopy on 325 river, reservoir and drinking water samples. The technique was found to be more sensitive, faster and easier to perform than conventional epifluorescent microscopy for the routine examination of water samples for **Cryptosporidium**.

L21 ANSWER 26 OF 33 MEDLINE DUPLICATE 15
ACCESSION NUMBER: 93374670 MEDLINE
DOCUMENT NUMBER: 93374670
TITLE: A new method for the concentration of **Cryptosporidium** oocysts from water.
AUTHOR: **Vesey G**; Slade J S; Byrne M; Shepherd K; Fricker C R
CORPORATE SOURCE: Thames Water Utilities Ltd, Spencer House Laboratories, Reading, UK..
SOURCE: JOURNAL OF APPLIED BACTERIOLOGY, (1993 Jul) 75 (1) 82-6.
Journal code: HDJ. ISSN: 0021-8847.
PUB. COUNTRY: ENGLAND: United Kingdom
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals

ENTRY MONTH: 199312

AB A novel method for the concentration of **Cryptosporidium** oocysts from water has been developed, based upon the precipitation of calcium carbonate. A 10 l water sample is treated by adding solutions of calcium chloride and sodium bicarbonate and raising the pH value to 10 with sodium hydroxide. Crystals of calcium carbonate form and enmesh particles in the **Cryptosporidium** oocyst size range. The crystals are allowed to settle, the supernatant fluid is discarded and the calcium carbonate precipitate dissolved in sulphamic acid. The sample can be concentrated further by centrifugation. Recoveries of oocysts from seeded samples of deionized, tap and river water were in excess of 68%.

L21 ANSWER 27 OF 33 BIOSIS COPYRIGHT 2000 BIOSIS DUPLICATE 16
ACCESSION NUMBER: 1991:397532 BIOSIS
DOCUMENT NUMBER: BR41:59377
TITLE: ISOLATION AND IDENTIFICATION OF **CRYPTOSPORIDIUM** FROM WATER.
AUTHOR(S): **VESEY G**; SLADE J
CORPORATE SOURCE: THAMES WATER UTILITIES, NEW RIVER HEAD LAB., 177 ROSEBERY AVE., LONDON EC1R 4TP, UK.
SOURCE: IAWPRC (INTERNATIONAL ASSOCIATION ON WATER POLLUTION RESEARCH AND CONTROL) INTERNATIONAL SYMPOSIUM ON HEALTH-RELATED WATER MICROBIOLOGY, TUEBINGEN, GERMANY, APRIL 1-6, 1990. WATER SCI TECHNOL, (1991) 24 (2), 165-168.
CODEN: WSTED4. ISSN: 0273-1223.
DOCUMENT TYPE: Conference
FILE SEGMENT: BR; OLD
LANGUAGE: English

L21 ANSWER 28 OF 33 BIOSIS COPYRIGHT 2000 BIOSIS DUPLICATE 17
ACCESSION NUMBER: 1991:441549 BIOSIS
DOCUMENT NUMBER: BR41:79284
TITLE: TAKING THE EYE STRAIN OUT OF ENVIRONMENTAL **CRYPTOSPORIDIUM** ANALYSIS.
AUTHOR(S): **VESEY G**; SLADE J S; FRICKER C R
CORPORATE SOURCE: THAMES WATER UTILITIES LTD., MED. MICROBIOL. DEP., SPENCER HOUSE LAB., MANOR FARM ROAD, READING RG2 0JN, UK.
SOURCE: Lett. Appl. Microbiol., (1991) 13 (2), 62-65.
CODEN: LAMIE7. ISSN: 0266-8254.
FILE SEGMENT: BR; OLD
LANGUAGE: English

L21 ANSWER 29 OF 33 CONFSCI COPYRIGHT 2000 CSA
ACCESSION NUMBER: 1999:12583 CONFSCI
DOCUMENT NUMBER: 99-025077
TITLE: Application of fluorescent-in-situ-hybridization

(Fish) for the routine determination of **Cryptosporidium** parvum species and viability in environmental samples

AUTHOR: Smith, J.J.; **Vesey, G.**; Dorsch, M.; Scandizzo, P.; **Veal, D.**

SOURCE: North American Lake Management Society (NALMS), P.O. Box 5943, Madison, WI 53705-5443, USA; phone: (608) 233-2836; fax: (608) 233-3186; email: nalmsalms.org; URL: www.nalms.org, Abstracts available. Contact NALMS for price..
Meeting Info.: 984 5030: North American Lake Management Society 18th International Symposium (NALMS '98) (9845030). Banff, Alberta (Canada). 10-13 Nov 1998. North American Lake Management Society.

DOCUMENT TYPE: Conference
FILE SEGMENT: DCCP
LANGUAGE: English

L21 ANSWER 30 OF 33 CONFSCI COPYRIGHT 2000 CSA
ACCESSION NUMBER: 93:62388 CONFSCI
DOCUMENT NUMBER: 94001661
TITLE: Concentration of **cryptosporidium** oocysts from water: The current status
AUTHOR: Fricker, C.R.; **Vesey, G.**; Slade, J.S.
CORPORATE SOURCE: Thames Water Util., Spencer House, Reading, Sydney, Australia
SOURCE: SABPO Box 510, Harrold, Bedford MK43 7YU, UK, Proceedings Poster Paper No. 30.
Meeting Info.: 933 0621: 62nd Annual Meeting and Summer Conference of the Society for Applied Bacteriology: Symposium on the Fundamental and Applied Aspects of Bacterial Spores (9330621). Nottingham (UK). 13-16 Jul 1993.
DOCUMENT TYPE: Conference
FILE SEGMENT: DCCP
LANGUAGE: English

L21 ANSWER 31 OF 33 CONFSCI COPYRIGHT 2000 CSA
ACCESSION NUMBER: 1999:12586 CONFSCI
DOCUMENT NUMBER: 99-025080
TITLE: Development of a highly specific IgG1 monoclonal antibody for the detection of **Cryptosporidium** in water concentrates simplifies monitoring assays
AUTHOR: **Weir, C.**; **Vesey, G.**; Ferrari, B.; **Williams, K.**; **Veal, D.**
SOURCE: North American Lake Management Society (NALMS), P.O. Box 5943, Madison, WI 53705-5443, USA; phone: (608) 233-2836; fax: (608) 233-3186; email: nalmsalms.org; URL: www.nalms.org, Abstracts available. Contact

NALMS for price..
Meeting Info.: 984 5030: North American Lake Management Society 18th International Symposium (NALMS '98) (9845030). Banff, Alberta (Canada). 10-13 Nov 1998. North American Lake Management Society.
DOCUMENT TYPE: Conference
FILE SEGMENT: DCCP
LANGUAGE: English

L21 ANSWER 32 OF 33 CONFSCI COPYRIGHT 2000 CSA
ACCESSION NUMBER: 1999:12584 CONFSCI
DOCUMENT NUMBER: 99-025078
TITLE: Development of rapid, simple-to-use flow cytometric detection methods for Giardia and **Cryptosporidium** in water: Increased sampling frequency
AUTHOR: Gauci, M.; **Vesey, G.**; **Weir, C.**; **Veal, D.**
SOURCE: North American Lake Management Society (NALMS), P.O. Box 5943, Madison, WI 53705-5443, USA; phone: (608) 233-2836; fax: (608) 233-3186; email: nalmsalms.org; URL: www.nalms.org, Abstracts available. Contact NALMS for price..
Meeting Info.: 984 5030: North American Lake Management Society 18th International Symposium (NALMS '98) (9845030). Banff, Alberta (Canada). 10-13 Nov 1998. North American Lake Management Society.
DOCUMENT TYPE: Conference
FILE SEGMENT: DCCP
LANGUAGE: English

L21 ANSWER 33 OF 33 CONFSCI COPYRIGHT 2000 CSA
ACCESSION NUMBER: 1999:12585 CONFSCI
DOCUMENT NUMBER: 99-025079
TITLE: Development and evaluation of a new Immunomagnetic Separation (IMS) method based on high affinity IgG1 antibodies for **Cryptosporidium** and Giardia
AUTHOR: Scandizzo, P.; **Vesey, G.**; Gauci, M.; Baer, D.; Smith, J.; **Veal, D.**
SOURCE: North American Lake Management Society (NALMS), P.O. Box 5943, Madison, WI 53705-5443, USA; phone: (608) 233-2836; fax: (608) 233-3186; email: nalmsalms.org; URL: www.nalms.org, Abstracts available. Contact NALMS for price..
Meeting Info.: 984 5030: North American Lake Management Society 18th International Symposium (NALMS '98) (9845030). Banff, Alberta (Canada). 10-13 Nov 1998. North American Lake Management Society.
DOCUMENT TYPE: Conference

FILE SEGMENT: DCCP
LANGUAGE: English

FILE 'HOME' ENTERED AT 11:29:06 ON 27 SEP 2000

Searcher : Shears 308-4994